# CITY SYMPHONIES 1913-1931: SOUND, POLITICS, AND THE AVANT-GARDE

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A dissertation submitted to Johns Hopkins University in conformity with the requirements for the degree of Doctor of Philosophy

Baltimore, Maryland
September 2016

**Abstract**

The aim of this dissertation is to give an account of the audial techniques and practices that constitute the city symphony as a sounding together — a *syn-phonia* — of the heterogeneous and oftentimes conflicting spaces of urban environments. I claim that these audial practices are essential for understanding how city symphonic works seek to compose the city as a political community. In arguing for this thesis, I explore four city symphonies that I consider paradigmatic examples of the genre due to their local and global aspirations for structuring society. These are Arseny Avraamov's *Symphony of Sirens* (1922), a mass spectacle that utilized the factory and military districts of the city of Baku in Azerbaijan (Chapter One); Bertolt Brecht's *Lindbergh's Flight* (1929), a radio play that sought to compose a global polis of listeners as performers (Chapter Two); and Walter Ruttmann's *Berlin, Symphony of a Big City* (1927), as well as Dziga Vertov's *Man with a Movie Camera* (1929), two films that constructed montage cities with contrasting political aims (Chapter Three). Through these works I explore themes related to the structuring of the polis as a musical community, the regulation of the polis by means of sonic phenomena such as noise, the theoretical and practical role of material sound technologies in the construction and maintenance of composed urban environments, the nature of the city symphony as an ideological apparatus, and the role of failure in the city symphony's aesthetic and political conception. In doing so, I hope to add depth to existing studies of the city in literature and film that conceive of city symphonic works primarily in visual or textual terms as a means of helping the modern spectator navigate the shocks of urban experience. By paying attention to the audial aspect of city symphonies, I hope to show how these works also sought to foster as well as regulate a utopian conception of community as manageable metropolis.

Advisors: Prof. Anne Eakin Moss; Prof. Leonardo Lisi

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**Acknowledgments**

This dissertation would not have been possible without the love and support of my parents, Emilia and David. I am greatly indebted to Prof. Anne Eakin Moss for countless hours of discussion during which we covered enough topics for ten dissertations. Not only her thoughts but also her upbeat attitude made for a fruitful, stimulating, and — dare I say — fun writing process. I would also like to thank Prof. Leonardo Lisi for some fundamental ideas that shaped this project in its final stages. Though he is quick to deny expertise in cinema and media studies, his insights into structural similarities between works in this study helped pull it together as a whole. I am especially grateful to Prof. Meredith Ward who was an invaluable source of information on everything related to sound. It is hard to conceive what this project might have looked like without her guidance. I would also like to thank Prof. Andrea Krauss for her course on the avant-garde, which exposed me to a number of theoretical approaches that greatly deepened my appreciation for framing and montage. Much of the early research for this project was done with the help of a fellowship from the Center for Advanced Media Studies, and thanks go to Bernadette Wegenstein who both ran the center and provided guidance to the fellowship's recipients. No dissertation in the Humanities Center could be completed without the help of Marva Philip; I thank her for her patience and support throughout. Lastly, this dissertation would not have been possible without the ideas and encouragement of my friends and colleagues at the Humanities Center — Benjamin Stein, Samantha Carmel, and Ben Gillespie.

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## Introduction: 1913

The primary focus of this study is to develop an account of the audial techniques and practices that constitute the city symphony as a sounding together — a *syn-phonia* — of the heterogeneous and oftentimes conflicting spaces of urban environments. The term 'city symphony' has thus far been used primarily in a descriptive manner, applying to a number of projects that focus on the city as text — a map to be read or interpreted — or as image — a fragmentary field of visual information.[1] These projects include novels such as Andrei Bely's *Petersburg* (1913), James Joyce's *Ulysses* (1922), and Alexander Döblin's *Berlin, Alexanderplatz* (1929), as well as silent films such as Alberto Cavalcanti's *Nothing But Time*, Walter Ruttmann's *Berlin, Symphony of a Big City*, and Dziga Vertov's *Man with a Movie Camera*. Following the urban and critical theory of figures like Georg Simmel, Siegfried Kracauer, and Walter Benjamin, studies of these projects have tended to focus on how they organized the sights and shocks that assaulted inhabitants of early 20th century cities. These studies often present the city inhabitant as a flâneur — a mobile spectator of urban thrills whose detached gaze reaches its apotheosis in the cinematic apparatus. Likewise, they tend to conceive of montage as reflecting the fragmentary nature of urban experience — as *Erlebnis* rather than *Erfahrung*, to use Benjamin's famous opposition.[2] By contrast, through an exploration of forgotten "acoustic" city symphonies such as Arseny Avraamov's *Symphony of Sirens*, as well as a re-examination of established ones such as Ruttmann's and Vertov's, this study argues that city symphonies across genres and disciplines were concerned with a specific set of issues related to sound and the construction of political

1. This division is mirrored in studies of the city generally. For treatments of the city as text see: Julie A. Buckler, *Mapping St. Petersburg*: *Imperial Text and City Shape* (New Jersey: Princeton University Press, 2005); Graeme Gilloch, *Myth and Metropolis*: *Walter Benjamin and the City* (MA: Blackwell Press, 1997). For a treatment of the city as image see: James Donald, *Imagining the Modern City* (London: The Athlone Press, 1999); Vanessa R. Schwartz, *Spectacular Realities*: *Early Mass Culture in Fin-de-Siècle Paris* (Berkley: University of California Press, 1998).
2. On the death of *Erfahrung* see, for instance, Walter Benjamin, "The Storyteller: Reflections on the Work of Nikolai Leskov," in *Illuminations*, ed. Hannah Arendt (New York: Harcourt, 1968), 83.

communities that oftentimes blurred the lines between citizen, listener, and performer. This is not to say that visual analyses of city symphonies are wrong or misguided, but rather that they reflect only one side of the city symphony as a multimedia genre that is both audial and visual. This study seeks to retrieve the audible aspect — the soundtrack, as it were — of the city symphony.

Through an equal emphasis on the terms 'city' and 'symphony,' this dissertation seeks to locate the city symphony within a nexus of interrelated practices that aimed to compose the polis into a musical work. These practices conceived of sound as a means of social and political organization. More specifically, they focused on audible phenomena characteristic of urban environments such as noise, as well as on new sound recording technologies, in order to expand the symphony out into the city. The heightened noise of urban environments became the basis of the city symphony's assault on traditional modes of listening and bourgeois culture, particularly insofar as noise represented the activity of subaltern groups and classes. Through noise the everyday practices of these groups were musicalized, thereby expanding the scope of so-called "musical sound." At the same time, city symphonies also used noise as an instrument of control, wielding it as a threat of violence that their musical structures could later subjugate. With regard to its use of new recording technologies, the city symphony developed the mechanical and theoretical possibilities afforded by radio, phonograph, and film. These stressed the material quality of sound as a recordable and inscribable frequency, as well as space as photographable, divisible, and rearrangeable. For the city symphonies in this study, material sound and space were more than a means to broadcast their compositions to a city-wide and potentially global audience; they were also the basis of utopian visions and schemes of scientific management that sought to control movement, behavior, and even thought. In exploring these uses of sound and space, I argue that the city symphony transgresses the borders between concert hall and public

sphere. Just as it brings the sounds of the city into music and film, it also transforms the city into its own orchestra.

In attempting to compose the polis, however, the city symphony was not always successful. This raises a key issue that is not emphasized enough in discussions of the modernist avant-garde — namely, failure. Failure to achieve their intended goals in certain respects is a key aspect of the city symphonies in this study, particularly insofar as the sounds and spaces they sought to compose resisted their conception of the ideal polis. Spaces fraught with histories of ethnic tension and religious strife could not easily be incorporated into a harmonious musical whole. Audiences refused to participate or else did not hear the work as it was intended. Indeed, in at least one case in this study, Arseny Avraamov's *Symphony of Sirens* (Chapter One) — a work that sought to compose a symphony through an orchestrated call-and-response of factory, military, and commercial districts in Baku, Azerbaijan — it was not clear whether the audience knew that what they were listening to was a musical work or even "heard" the work at all. The attempt to use radio and film to connect spatially and temporally disparate spaces into a conception of the ideal polis was also not unequivocally successful on account of technical failures. In the case of Brecht's radio play, *Lindbergh's Flight* (Chapter Two) — a work that this study argues attempts to compose a global polis — the technology itself lacked the political and institutional support to carry out its mission — its symphonic potential could only be demonstrated, not enacted. Lastly, there was a certain failure in the hope placed on the promise of new technology itself. This is the case in Ruttmann and Vertov's films (Chapter Three). The attempt to pinpoint sounds and spaces as artistic materials reflected a hubris regarding the political potential of a socially engaged aesthetics that was facilitated by means of a technical as well as ideological apparatus.

The city symphony's failures manifest a tense relationship to the world it seeks to compose. Its conception of borders is more fluid than those of the community with which it is engaged. In this regard, a further point this study makes is that, for the city symphony, the local is already global: the polis may be writ large on the globe just as, for Plato, the psyche was writ large on the polis. This move from local to global is the source of great tension within the city symphony, particularly between its individual parts — sounds and spaces — and its conception of the whole. As I hope to show, the city symphony is not merely concerned with representing or helping the modern subject navigate the city; rather, its concern is to formulate sonic, spatial, and temporal relationships in the interest of structuring a community *as* a potentially global polis. The city symphonies that this dissertation investigates all saw new technologies of mass media as a means to this end. These technologies — specifically radio and cinema — became a way of bringing together sounds and spaces in order to construct the greater symphony hall. Each of the city symphonies in this study emerged out of a tradition of politically engaged aesthetics that saw art as a means of structuring this kind of community. For them, with the help of technical intervention, the spaces of the city became materials for aesthetic and political construction.

In what follows, I explore the aesthetic, technical, and sociopolitical themes and tensions that constitute the city symphony. These may be broken down according to the following headings: borders, politics, materials, the technical apparatus, and failure. The relationship between these aspects will offer a more complete understanding of the political and aesthetic concerns of the city symphony.

**I. Borders: Noise/Music; City/Symphony**

The start date of this study — 1913 — marks the entry of noise into music not as an ornamental flourish, but as the subject of composition. The aim of composing would no longer be solely the

production of harmony, nor even the systemic control of dissonance (as in Arnold Schönberg's twelve-tone system), but the production of unsystematic sonic effects — non-periodic frequencies that could, in principle, result from any sonic phenomena whatsoever. In his 1913 manifesto, "The Art of Noises," the Futurist composer, Luigi Russolo, theorized this shift — one that would later form the basis for *musique concrète* — as an expansion of the palette of musical sounds from "soft and limpid" harmonies to the "shrillest, strangest and most dissonant amalgams of sound." This sonic shift was accompanied by a spatial one as well — one that Russolo characterized as a movement of streets sounds into the symphony hall: "For years," he wrote, "Beethoven and Wagner have shaken our hearts. Now we are fed up with them. This is why we get infinitely more pleasure imagining combinations of the sounds of trolleys, autos and other vehicles, and loud crowds, than listening once more, for instance, to the heroic or pastoral symphonies."[3] Russolo sought to realize this movement of the city into the symphony by creating noise instruments (*intonarumori*) — hand cranked wooden boxes outfitted with a spinning wheel, vibrating string, and drum — that could approximate these sounds at different pitch levels. The result was Russolo's first snatch of noise music, "The Awakening of a City," a steady crescendo of bustling traffic. Clocking in at under four minutes, this fragment was more than an attempt to reflect the sounds of modern life; nor was it an attempt to radically break with the musical past. Rather, it sought to continue a symphonic tradition that, for Russolo, was characterized by a search for ever-greater musical thrills: "To excite our sensibility," Russolo wrote, "music has developed into a search for a more complex polyphony and a greater variety of instrumental tones and coloring. It has tried to obtain the most complex succession of

3. Luigi Russolo, "The Art of Noises," tr. Robert Filliou (Ubu Classics, 2004), 6. www.artyped.de/Sammlung/pdf/russolo_noise.pdf.

dissonant chords, thus preparing the ground for musical noise."[4] Thrills, noise, and intensity, according to Russolo, were the reasons that the public went to the symphony, characterizing its evolution. The musical tradition from Hayden to Wagner could thus be summed up with one word: louder. Noise was its necessary outcome.

The movement of the city into the symphony characterized not only Russolo's "Art of Noises," but also a number of other orchestral works at the turn of the 20th century. Composed in honor of particular towns and cities these included Frederick Delius' 1899 "Paris: A song of a Great City (Nocturne);" Edward Elgar's 1900 "Cockaigne, Overture op. 40 In London Town;" Charles Ives' haunting 1906 "Central Park in the Dark;" as well as the preludes 'Paris s'éveille' and 'Vers la citlointaine' to Gustave Charpentier's 1900 opera *Louise*.[5] As in painting, the city becomes an object of fascination for these impressionist works, peppering their scores with car horns and snatches of ragtime. Russolo's "Awakening of the City," however, marked a tipping point, not only on account of its novel use of noise instruments, but because it pointed simultaneously in the opposite direction: from the symphony out into the city. This study concerns itself with this opposite movement. In arguing that we ought to characterize the city symphony as transgressing the borders between concert hall and public space, I suggest that the city symphony, like Russolo's art of noises, continued a symphonic tradition. Already, in the "Art of Noises," Russolo implicitly remarked upon this trajectory, correlating the symphony's increase in volume to its increase in size: "The ear of an eighteenth century man never could have withstood the discordant intensity of some of the chords produced by our orchestras (whose performers are three times as numerous); on the other hand our ears rejoice in it, for they are

4. *Ibid*.
5. See Barbara Barthelmes, "Music and the City," in *Music and Technology in the Twentieth Century*, ed. Hans-Joachim Braun (Baltimore: Johns Hopkins University Press, 2002), 98.

attuned to modern life, rich in all sorts of noises."[6] The growth of symphony orchestras over the course of the 19th century, for Russolo, was an attempt to keep pace with sounds pressing in from outside. This increase in the volume and physical size of symphonies was also accompanied by an increase in their social scope. As an institution, the symphony had grown from a courtly recreation to a public mode of entertainment and edification. If the 18th century symphony was performed in the relative quiet of the aristocratic court, and the 19th century symphony expanded in both size and volume to fill the public concert hall, then the 20th century orchestra, as this dissertation contends, grew to accommodate and ultimately encompass the sounds and spaces of public life. Part of this expansion meant bringing the sounds of the city into the symphony; the other meant treating the city *as* a symphony. This dissertation investigates primarily the latter development as a manifestation of the city symphony's relationship to borders.

The border between symphony and public space is one that the city symphony consistently seeks to undermine. Its attempt to do so is the locus of a number of productive tensions concerning the relationship between art and public space. These include the relationship between utopian conception and immediate physical reality, present and future, whole and fragment, global and local, etc. The issue of how the city symphony undermines (and in some cases maintains) borders will be explored through a number of different aural phenomena and practices, two of which are important to note from the outset since they are related to Russolo's conception of the symphony as a vehicle for ever greater sonic effects. The first, noise, is an integral feature of the city symphony, not only as the movement of city sounds into the symphony (and vice versa), but as a direct assault upon borders in general. Noise is, to say the least, a difficult category to establish with a long history of scholarship in its own right. For the

6. Luigi Russolo, "The Art of Noises," 6.

purposes of this dissertation, I'd like to approach it not simply as something that is loud or unharmonious, but as an excess that threatens a distinction or border (hence the difficulty determining *what is noise?*). Such a conception is common to a number of theories of noise including the idea that it is a form of information overload,[7] that it is a social category ascribed to the unwanted sounds of others,[8] or that it is whatever is left over when the categories of 'music' and 'speech' have been exhausted.[9] In these senses, noise is the Other whose power to disfigure and distort a particular system of meaning must be circumscribed and contained or otherwise harnessed — perhaps even liberated. As such, it not only threatens but also demarcates a border, whether aesthetic (noise/music), technological (noise/signal), or social (barbarian/civilized).

The city symphony's application of noise is a source of tension as it is not the case that the city symphony wished to give noise free reign. (Not even Russolo, who, after all, sought to systematize noises into categories and control them with a special class of instruments, intended such a result). Avraamov, for instance, deployed noise as part of an assault both on the traditional structures of music and the social relations that constituted Baku. He did so, however, while trying to subject noise to an organizational scheme based on the October Revolution's guiding melody — the "Internationale." Brecht staged a dialogue between Lindbergh and the noise of his motor as an attempt to undermine the distinction between human and machine; nevertheless, this dialogue between speech and noise occurred within a tightly controlled operatic form, one in which such "sound effects" would not have been out of place. Similarly, both Ruttmann and

7. Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Chicago: University of Illinois Press, 1963), 18-24.
8. Paul Hegarty, *Noise/Music: A History (*New York: Continuum, 2007), 5; Karin Bijsterveld, "The Diabolical Symphony of the Mechanical Age: Technology and Symbolism of Sound in European and North American Noise Abatement Campaigns, 1900-1940," *Social Studies of Science*, 31, 1 (Feb., 2001):37-70.
9. Michel Chion, *Sound*: *An Acoulogical Treatise*, tr. James A. Steintrager (Durham: Duke University Press, 2016), 55-80.

Vertov deployed noise as an excess of visual information intended to stimulate their audiences. At the same time, they sought to harness this effect through a dynamic of tension and resolution, a fundamental feature of music in general. This dialectic between noise and its subjugation animates the city symphony as a whole, undermining certain borders while building or even preserving others.

The second aural practice that is relevant to the city symphony's expansion of borders places it within a musical tradition associated with Richard Wagner's notion of the *Gesamtkunstwerk* — the Total Work of Art. Following the work of Danielle Follett and Anke Finger, I argue that the city symphony is part of this tradition insofar as it manifests what they've called the *Gesamtkunstwerk's* "aesthetic ambition to borderlessness."[10] According to Follett and Finger, this ambition takes three interrelated forms: first, as a "lack of boundaries between the different arts and genres, as in multimedia, operatic, and synesthetic creations," as well as through a "blending of 'poesy' with philosophy and criticism" (aesthetic borderlessness); second, as a political "transgression of the borders between art and life or between art and society in a creative endeavor often conceived as collective and interactive that invites creative 'audience' participation and that often aims toward some kind of societal transformation and indeed is sometimes outright utopian and/or revolutionary…" (political borderlessness); third, as a "metaphysical sort of borderlessness, a merging of present, empirical reality with a nonpresent, or not-yet-present, envisioned totality, unity, infinity, or absolute — an aspiration that is manifested, among other ways, in the often ritualistic nature of many total artwork projects."[11] As a multimedia experiment that combines music and sound arts with theater, text, and/or

10. Danielle Follett and Anke Finger, "Dynamiting the *Gesamtkunstwerk*: An Introduction to the Aesthetics of the Total Work of Art," in *The Aesthetics of the Total Artwork*: *On Borders and Fragments*, ed. Anke Finger and Danielle Follett (Baltimore: The Johns Hopkins University Press, 2011), 3-4.
11. *Ibid.*

cinema, the city symphony is clearly an instance of the first form of borderlessness. As an attempt to compose the city into a political community, oftentimes on the basis of audience participation, it is also an instance of the second. Lastly, as an attempt to construct a community that is yet to be realized through the materials of the present, the city symphony is also an instance of the third.

Though all three forms of borderlessness are present, to varying degrees, in the city symphonies in this study, I have chosen to limit discussion of Wagner's influence on the city symphony project to Brecht's *Lindbergh's Flight* (Chapter Two). The reason for this decision is that Brecht is the most directly engaged with teasing out the internal contradictions and tensions present in the *Gesamtkunstwerk*. While the subject of many of his critiques and projects such as the epic theater, *Lindbergh's Flight* nevertheless attempts to continue its legacy. In expanding the borders of the city to their widest potential — the globe — this work shows how the city symphony's ambition to borderlessness concerns more than just urban experience.

**II Politics: The City Above, The City Below**

The city symphony's ambition to borderlessness underscores the fact that it is an attempt to reshape political relationships not just at a local but at a global level. This should not come as a surprise, since the city has always stood in a privileged relationship to global power structures. In *Universe of the Mind*: *A Semiotic Theory of Culture*, Yuri Lotman describes two different modes of relating the city to such structures. For Lotman, the "city may be isomorphous with the state, and indeed personify it, *be it* in some ideal sense (Rome the city is also Rome the world); but the city can also be an antithesis to the surrounding world. *Urbs et orbis terranum* can be perceived

as antagonistic to each other."[12] With regard to the former, the city "is like a church in relation to the city at whose centre it is situated,…Or rather, no matter where it is situated, the city is *considered* to be the centre. Jerusalem, Rome, Moscow have all been treated as centres of their worlds. As an ideal embodiment of its country, the city is at the same time an image of the heavenly city and a sacred place." With regard to the latter, the city is "placed eccentrically to its earth, beyond its boundaries," as when a ruler asserts his control over a new domain or cultural order through the construction of a new capital. In this sense, "what already exists is declared to be non-existent, and what has yet to appear is declared to be the only thing to exist."[13] Thus, when Peter the Great (1672-1725) began constructing St. Petersburg, he effectively declared Moscow and the cultural order it represented (Slavic, anti-western) to be a non-entity, while the new capital itself was little more than a swamp.

With certain modifications, the city symphony constructs relationships between sounds, sights, spaces, and audiences in both these modes. These may conflict or harmonize depending on the case. On the one hand, the city symphony presents itself as a new kind of center — one that *is* the state not just "in some ideal sense," but in the very real sense that it fashions the state through montage links between disparate times and spaces. Vertov's *Man with a Movie Camera* is consistent with this idea, as are most films of his Kino-Eye group. "[T]he majority of Kino-Eye films," he wrote in a letter to a German newspaper accusing Walter Ruttmann of copying his ideas, "were constructed as a symphony of labor, as a symphony of the whole Soviet country, or as a symphony of a single city."[14] These films, which Vertov began making as newsreels in the early 1920s, typically followed material relationships of production within a geographic space.

12. Yuri Lotman. *Universe of the Mind*: *A Semiotic Theory of Culture*, tr. Ann Shukman (UK: I.B. Tauris and Co., 1990), 191.
13. *Ibid*, 192.
14. Dziga Vertov. "Письмо в редакцио [Берлинксой Газеты]." In *Дзига Вертов: Из Наследия*, vol. 2 *Статьи и Выступление*," 181. Translation mine. A portion of the letter is translated as "Letter from Berlin" in *Kino-Eye*: *The Writings of Dziga Vertov*, ed. Anette Michelson, tr. Kevin O'Brien, 101.

Thus in *One Sixth of the World* (1926), Vertov traced the connections between Siberian fur trappers and factories in Moscow, justifying along the way the sale of their goods to capitalist countries by showing how this would help the Soviet Union develop a self sufficient economy. Here, as in Arseny Avraamov's *Symphony of Sirens*, symphonic relationships between spaces *are* the state in a very real way: they are its economic pathways, its very livelihood, as well as the primary means by which people within the state understand one another. For Vertov, it is the cinema's unique ability to allow people to see (and later hear) one another that makes it such an important tool for constructing this state. Without film, this conception of the Soviet Union as whole related by the labor practices of disparate groups would not be possible.

Vertov's *Man with a Movie Camera* seeks to realize this conception through the construction of a city composed of four urban spaces — Moscow, Kharkiv, Odessa, and Kiev. In doing so, the film presents the composite city as isomorphous with the state insofar as relationships within the former represent the latter. In Vertov's case, this relationship is not the same as 'Rome the city; Rome the world,' for it does not carry the same symbolic weight. For Avraamov, however, this was precisely the case: in organizing the harmonious interaction of Baku's three major ethnicities — Azerbaijani Turkish, Russian, and Armenian — he sought to make Baku the city into Baku the world. In 1922, the city was to be the Soviet gateway to the Orient, a launching point for a global revolution. The city represented the global potential of a classless society.

On the other hand, the city symphony is in a certain sense antagonistic to the surrounding earth — a construction that is yet to be in several important senses. First, the city symphony is a mass media construction. It is quite literally antagonistic to the surrounding earth insofar as it exists on celluloid or on the airwaves. As a consequence, the city symphony is not a concrete

capital, nor is it a blueprint for one. Even the most city-specific symphonies do not primarily sketch or document a city. Hence, Alberto Cavalcanti's 1926 *Nothing but Time* — a city symphony that is ostensibly about Paris — begins with two authorial inter-titles that undermine such a conception: "[This film] is only a sequence of impressions of time passing and does not claim to synthesize any city;" "[a]ll cities would be the same if their monuments did not distinguish them." In short, foreshadowing René Margritte's 1928 painting, "The Treachery of Images," Cavalcanti starts his film with the claim that *this* is *not* a city — at least not any one in particular. There is, however, something universal about this city. While he does not claim to synthesize any city in particular, Cavalcanti nevertheless creates one that exists in a space common to all cities as impressions of passing time. This points to the possibility of constructing a new kind of city — one that links disparate spaces without being grounded in any one in particular.

Many of the cases in this study conceive of this possibility as a means to construct an alternative polis or public sphere.[15] This brings out the second sense in which the city symphony is antagonistic to the surrounding earth — namely, it often puts forward a utopian conception of social relations that radically break with the past. In doing so, the city symphony declares the present political reality to be non-existent while declaring itself to be the only 'true' state. This presents a difficulty, however: the city symphony must establish its political conception in the absence of a long historical tradition that binds it to the world. The city symphonies in this study seek to legitimate a political community that lacks strong historical ties between its members and the spaces they inhabit. In abolishing or ignoring the past, they are at pains to erect something in its place based either on a new set of enlightened principles or, as in the case of Ruttmann's

15. Jürgen Habermas, *The Structural Transformation of the Public Sphere*: *An Inquiry into a Category of Bourgeois Society*, tr. Thomas Burger (Cambridge: MIT Press, 1991).

*Berlin*, on the basis of sheer temporal simultaneity — the mere fact of inhabiting the same space at the same time. The question then becomes what binds this new community? How is it regulated? And how will these bonds interact with the spaces in which people actually live?

With regard to the first question, as I hope to show, the city symphony deploys a number of audial techniques that bind members of its community together. These include call-and-response, collective singing, and the linking of disparate sounds, spaces, and peoples through paradigmatic comparisons of rhythm. Such techniques are designed to give individuals living in the metropolis a sense of collective identity through participation *in* the symphony. Rather than treating the viewer as an isolated consumer, the city symphony strives to activate her as a performer. If, however, as in the case of city symphony films, the audience does not immediately participate, they are still implicated as the primary subject of composition. Typically this has been understood in terms of modernity's obsession with masses and crowds.[16] While accurate, such an idea has obscured the fact that the depiction of masses — of ordinary people engaged in everyday activities — is also a primary mode of community building. For the city symphony, rhythmic comparisons of labor and leisure practices becomes the basis of a shared identity or a sense of belonging to a particular space.

With regard to the second question — how was this community regulated? — I suggest that the city symphony subjected its audiences to different regimes of sensory management. This issue is important to raise in order to avoid the impression that the city symphony was simply an idealistic experiment in non-hierarchical organization. Though every listener was in principle a participant or subject of composition, the manner in which these participants were controlled was not necessarily as egalitarian as such a notion implies. Regimes of sensory management that

16. See, for instance, Walter Benjamin's "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations*, 217 in which Benjamin asserts that the masses should be the proper subjects of filmmaking.

maintained a balance between audience stimulation and control were an essential feature of the city symphony genre. In visual approaches to city symphony films, these regimes have typically been understood in term of the idea that the cinema — along with other forms of mass media such as newspapers — were designed in part to accustom the metropolitan individual to what Georg Simmel saw as "the rapid telescoping of changing images…and the unexpectedness of violent stimuli" characteristic of urban life.[17] These media practices were understood, implicitly or explicitly, as a way of maintaining the individual over-and-against the constant barrage of fragmentary information.

In this dissertation, I approach this dynamic largely in terms of how the city symphony deployed and controlled noise as a violent shock. The concept of noise, as I pointed out above, is crucial to understanding the city symphony's attack and reconfiguration of borders. Following the work of the economist and music theorist, Jacques Attali, I argue that the city symphony marshals this threat as a way of structuring the power relations that guide the city symphony as polis. For Attali, noise embodies a threat of violence and death that music seeks to harness. This reflects the dynamics of power within a given era of European society: "Since it is a threat of death," he writes, "noise is a concern of power; when power founds its legitimacy on the fear it inspires, on its capacity to create social order, on its univocal monopoly of violence, it monopolizes noise."[18] On such a conception, music submits noise to an organizational scheme in order to both inspire fear and reassure; it does so by building dissonance and providing resolution through a final return to harmony. For this reason, Attali argues, "the game of music…resembles the game of power: monopolize the right to violence; provoke anxiety and

17. Georg Simmel, "The Metropolis and Mental Life," in *Simmel on Culture*, eds. David Frisby and Mike Featherbone (London: Sage Publications), 174.
18. Jacques Attali, *Noise*: *The Political Economy of Music*, tr. Brian Massumi (Minneapolis: University of Minnesota Press, 1985), 28.

then provide a feeling of security; provoke disorder and then propose order; create a problem in order to solve it."[19] The city symphony plays a similar game. For the figures in this study it embodies the "anarchic tendencies" of workers (Avraamov), the marginalized sounds of others (Vertov), a threat of fragmentation and information overload (Ruttmann), and the sound of a mechanized humanity (Brecht). Far from mutually exclusive, these conceptions of noise are compositional elements in all these works. Their deployment and regulation is a fundamental feature of how the city symphony maintains its political community.

Finally, with regard to the last question — how did this kind of composition interact with spaces in which people actually lived? — it is important to understand that the city symphony draws out a tension between Lotman's two modes of relating the city to the state — namely, the city as isomorphous with the state and the city as in some sense *beyond* or *ahead* of it. It does so insofar as it represents a conflict between an ideal conception of society and set of real relations that obtain, as it were, on the ground. This tension becomes especially apparent in Avraamov's *Symphony of Sirens* (Chapter One). In many ways, the districts of the city this symphony sought to compose rejected its musical conception even as they participated in it. This points to the fact that the city symphony is not an entirely closed work of art, beholden only to its own rules of internal consistency. Rather, its conception of the polis is forced to interact with a lived set of relations that often resist its vision through their own history. Space is fickle material to compose, particularly when there are already people living in it according to their own traditions and practices. In attempting to compose an urban environment, the city symphony frequently encounters this problem as a resistance of sound and space as materials.

19. *Ibid.*

**III. Materials: Sound and Space**

One of the fundamental characteristics of the city symphony is its use of sound and space as materials. The city symphony deployed sound as a physical substance — as frequency and wave — that could be captured by new technologies of mechanical reproduction. Such a conception of sound, as Friedrich Kittler has argued in *Gramophone, Film, Typewriter*, was part of a paradigm shift from the Pythagorean logic of intervals — the fourth, the fifth, the octave — to a physics of frequencies.[20] Formerly conceived as a ratio whose relations expressed the harmony of celestial spheres, sound became over the course of the 19th and 20th centuries a field of investigation for the science of acoustics. This process began — if such monumental shifts may be said to have a beginning — with Ernst Chladni's 1785 experiments in drawn sound, and progressed through Édouard-Leon Scott's phonoautograph (1857) and finally Thomas Edison's phonograph (1877).[21] Such technologies materialized sound in sand, resin, and wax where it became the site of multiplicity — of overlapping vibrations and frequencies that could be altered or synthesized. At the same time, scientific advances that made it possible to visualize, track, and materialize sound, also made it possible to track movement in space — not in resin and wax, but in dry gel on paper (film). Étienne Jules-Marey's chronotographic gun (1882) and Edweard Muybridge's motion photography (1886) became the basis not just for cinema, but for the time and motion studies of Frank and Lilian Gilbreth, pioneers, along with Frederick Winslow Taylor, of scientific management.[22] Studies in scientific management sought to trace workers' movements in time, graphically representing them along motion curves so as to calibrate their maximum efficiency.

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20. Friederich A. Kittler, *Gramophone, Film, Typewriter*, trs. Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1986), 24-25.
21. For a historical and theoretical account of these developments see: Douglas Kahn, *Noise Water Meat*: *A History of Sound in the Arts* (Cambridge: MIT Press, 1999), 70-76.
22. See, for instance, Jonathan Crary, *Techniques of the Observer*: *On Vision and Modernity in the Nineteenth Century* (Cambridge: MIT Press, 1990); Brian Price, "Frank and Lilian Gilbreth and the Motion Study Controversy, 1907-1930," in *A Mental Revolution*: *Scientific Management Since Taylor* (Columbus: Ohio State University Press, 1992), 58.

Similar to the paradigm shift in sound, the conception of space implicit in these studies developed from something indivisible and non-transposable to something infinitely divisible and rearrangeable. Aside from raising Zeno's paradox anew for philosophers such as Henri Bergson, this shift made it possible to think of space as a manipulable material that could be captured, cut, reconnected, reconfigured, and even sent hurtling in the opposite direction. In the art of the avant-garde, these manipulations are typically grouped under the rubric 'montage.'

Using both the practical and theoretical possibilities that these technologies afforded, the city symphony sought to compose sound and space as aesthetic material into novel conceptions of the polis. This type of composition was simultaneously practical and utopian, deeply committed to this world as well as one beyond it. On the one hand, as numerous studies have recounted, the city symphony is part of the tradition of applied aesthetics. Its practitioners emerged from artistic and scientific movements that had close ties to constructivism (Avraamov, Vertov), behaviorism (Brecht), and advertisement (Ruttmann). It sought to apply the methods of these movements in the political management of the city as a model community, deftly directing flows of audial and visual information into a structured whole. The sounds and movements of the city symphony were no mere abstractions, nor were they simply traces of events that had already occurred; rather, they were part of the same technological tradition that sought to break sound and space down into manipulable materials with the hopes of thereby altering the course of society. On the other hand, the city symphony pinned a number of utopian, even religious aspirations to these materials that far exceeded their present-day capabilities. This is not to say, however, that city symphony practitioners were waiting for a day when technology would catch up with their visions. Quite the contrary: they saw these technologies as means to realize their visions through the materials of the present — through novel reconfigurations of space and

sound. For the Soviet and Marxist practitioners in this study, material space and sound were the fundamental building blocks in a Babel-like construction of unity. They sought to realize this construction through technologies that not only reached far wider groups of people, but also provided the theoretical basis of influencing them based on varying takes on behaviorism, psychophysics, and a conception of the body as a machine.[23] In many respects the products of the above scientific management conceptions of spaces, these ideas found expression in Avraamov's conception of music, Brecht's notion of Gestus and the epic theater, Ruttmann's idea of film as a motion curve, and Vertov's theory of the movement interval. The utopian aspirations of these notions frequently came into conflict with the immediate practical and political goals of the city symphony, not to mention its physical surroundings. As I hope this conflict shows, the city symphony, while greatly indebted to applied aesthetics and theories of scientific management, is irreducible to these ideas. There is a utopian, impractical, and (most importantly) impatient element to the city symphony — one that seeks to kick technological developments in the efficient use of time and space into overdrive. This study explores this tension through the compositions and theoretical writings of each city symphony practitioner.

Of particular importance in this regard is the idea of "ecstatic materialism," a concept I develop through Arseny Avraamov's *Symphony of Sirens*. I coined this term in order to capture both the materialist and utopian commitments of Avraamov's symphony — a work that sought to realize an ecstatic leap in time through a sudden reshuffling of present day sounds and spaces. For Avraamov, these sounds and spaces were materials for a vision of unity that he characterized as being outside the progression of linear time. The symphony was, in this sense, a leap into the future — one in which the bonds of universal brotherhood were suddenly realized through a

23. For a detailed account of these practices see: Anson Rabinbach, *The Human Motor*: *Energy, Fatigue, and the Origins of Modernity* (Berkeley: University of California Press, 1992).

revolutionary artistic practice that cut all ties to the past. Nevertheless, this leap took place in and by means of the material qualities of the present — the city's everyday sounds, spaces, and practices. The *Symphony of Sirens* was thus not a projection of how a future society could be, but an attempt to realize that society immediately through a reorganization of the present's spatial and sonic structures. Though I develop this conception of ecstatic materialism through Avraamov's work, I would like to suggest here that it is also an aspect of the city symphony in general. For Brecht, ecstatic materialism manifests itself in the way that *Lindbergh's Flight*, as a 20th century *Gesamtkunstwerk*, blends empirical and non-empirical reality in a metaphysical ambition toward borderlessness — especially insofar as this ambition depends on material technologies of sound reproduction. Similarly, the promise that Ruttmann finds in film as a means to modify society, though not as idealistic as that of Avraamov, Vertov, or Brecht, goes beyond film merely as an instrument of control. Here, the very idea that film can actively structure politics through the regulation of motion is itself *beyond* the present moment, not in the sense that the technology is not sufficiently developed, but in the sense that it promises a utopian result *today*. Lastly, Vertov's *Man with a Movie Camera* combines Avraamov's hope of a unified society with film's ability not only to connect spaces, but to accelerate time. The realization of the future in the present is something that Vertov seeks through the very speed of his film.

The contradictions of ecstatic materialism make it an interesting figure for examining how the city symphony deploys applied aesthetics. It should be noted here, however, that for these figures ecstasy — in the sense of being outside time — is not something subjective, nor is it a feature of the subject's interaction with time. For Heidegger, for instance, ecstatic temporality is a mode of being by which *Dasein* discloses its world.[24] This mode, while common to all

24. See sections 68-71 of Martin Heidegger's *Being and Time*, tr. John Macquarrie and Edward Robinson (Oxford: Blackwell, 1962), 383-424.

human beings as well as their interactions with one another, is nonetheless deeply personal. It depends on the activity of the subject. By contrast, for the figures in this study, time and space are manipulable materials that may be controlled by a technical apparatus. They do not require the disclosure of a subject but rather the instruments of an engineer. If a subject cannot keep pace with the manipulations of these materials, she risks falling behind time itself and thereby risks categorization as a member of an antiquated world. This is not to challenge Heidegger's analysis. Clearly, a certain amount of world-disclosing is necessary to conceive or even utilize such technologies. Rather, it is to point to a different conception of the ecstatic — one whose locus is the possibility of technological manipulation of the materials of the present and of treating sound, time and space as materials for the construction of a new kind of society. To a certain extent, the figures in this study represent the kind of instrumental reasoning that Heidegger takes issue with in his "The Question Concerning Technology."[25] At the same time, they place a hope in the technological manipulation of the present *as* material that is not reducible to mere instrumental reason. The aims of the city symphony is not simply to exploit humans or resources more efficiently, though it draws problematically on such practices. Its aim is a community, often times a utopian one, that it perceived in the seemingly boundless potential of these technologies.

The city symphony's use of materials also poses questions regarding the latter term — materialism. Three of the four city symphony practitioners in this study — Avraamov, Brecht, and Vertov — were Marxists with varying degrees of commitment to dialectical materialism. Without getting into a drawn out discussion of what particular strain of materialism influenced which practitioner, it is important to note a common quality of their conception of this term. Namely, each practitioner believed that the material world obeyed certain laws and that

25. Martin Heidegger, "The Question Concerning Technology," in *The Question Concerning Technology and Other Essays* (New York: Harper and Row, 1977).

phenomena of the highest order such as thoughts and ideas could be explained and even manipulated in terms of these laws. This form of strong materialism is present, for instance, in the city symphony's use of ideas borrowed from psychophysics — the study of the influence of physical phenomena on the psyche. Each city symphony in this study sought ways of causing thoughts directly through the appropriate deployment of sounds and forms of motion. The figures in this study often conceived of these forms as acting deterministically — certain movements led to certain thoughts and vice versa. In this sense, there was no room for chance with regard to the city symphony's interaction with its audience — no aleatory possibility of encounter, to use Althusser's terms, by which certain materials went off course and generated new possibilities that could be seized or not seized.[26] Despite this fact, the city symphony was nevertheless committed to ideas, such as those regarding the acceleration of time, that went beyond their materialist commitments. More importantly, their projects often stumbled in their attempt to dictate the material course of society. As an apparatus designed to tune the workings of society into a harmonious whole, the city symphony was rather creaky.

**IV Apparatus: Revealing and Concealing**

Throughout this study, I will frequently refer to the city symphony not simply as an aesthetic phenomenon governed by formal conventions — e.g. counterpoint, symphonic structure, and an emphasis on audience participation — but as an apparatus. Doing so further emphasizes the city symphony's political project: it is an exercise in state building centered around the idea of society as polis. As opposed to, say, an agrarian society of independent farmers, the city symphony engenders a tightly interwoven community regulated on the model of a symphony.

26. Louis Althusser, "The Underground Current of the Materialism of the Encounter," in *Louis Althusser*: *Philosophy of the Encounter,* tr. G.M. Goshgarian (London: Verso, 2006), 186

The city symphonic apparatus utilizes audiovisual techniques to structure this polis in accordance with both practical and utopian demands. On the one hand, such a conception is frequently committed to radically egalitarian notions of sound, space, and politics. City symphonies present the sounds of others (e.g. industrial noise) as music; they connect spaces in ways that seek to abolish hierarchies between center and periphery; they bring together listeners and performers in ways that seek to annul this distinction. As such, they aim to create the impression of the city as self-governing — a conductorless orchestra in which all aspects of the composition are apparent to the participants.[27] On the other hand, city symphonies also manifest totalitarian tendencies through their emphasis on material space and sound as instruments of control. The schemes of scientific management to which the city symphonies in this study were variously committed often concealed the means by which they produced their effects. In other words, while creating the impression that there was no conductor, city symphonies were nonetheless conducted in ways that made deviating from the composition difficult.

This tension between revealing and concealing, as well egalitarianism and totalitarianism (the two oppositions are not always equivalent), characterizes the city symphony as an apparatus. To better understand it, we should first set down what kind of apparatus the city symphony is. In this regard, I suggest defining the apparatus in Althusser's terms as that which facilitates "the reproduction of the conditions of production."[28] Althusser's insight was that the reproduction of these material conditions did not take place at "the level of the firm" — that is, at the level of the material base — but rather at the level of ideology conceived as "the rules of the established

27. Indeed, the conductorless orchestra, *Persimfans* — an acronym that stood for First Conductorless Symphony Ensemble — was a short-lived experiment in the early Soviet Union.
28. Louis Althusser, "Ideology and Ideological State Apparatuses (Notes towards an Investigation)," in *Lenin and Philosophy and Other Essays*, tr. Ben Brewster (London: NLB, 1971), 123.

order."[29] Institutions of the state such as the education system, the legal system, mass media (radio, cinema, and television), the military and police taught or otherwise enforced submission to these rules.[30] They reproduced submission to them so that, for instance, employers knew (in a general way) how to treat workers and vice versa. Althusser's term for this entire complex of rules governing the relations of material reproduction was the state ideological apparatus.

Though all state systems function by means of ideology, Althusser is primarily concerned with detailing the function of ideology in a capitalist system. By contrast, the city symphonies in this study, with the exception of Ruttmann's *Berlin, Symphony of a Big City*, generally aimed to develop an alternative ideology for a mode of production that did not require rules of submission to a dominant hierarchy. Theirs was, in principle, an egalitarian ideology of mutual recognition, albeit a highly regulated one. One of Althusser's metaphors for how ideology functions is especially pertinent in this regard. The central thesis of his essay is that "*all ideology hails or interpellates concrete individuals as concrete subjects*, by the functioning of the category of the subject."[31] That is, ideology transforms concrete individuals into subjects through an implicit process of recognition. Althusser's example of this type of interpellation/recognition is the policeman's hail: "'Hey, you there!'" The fact that the individual turns around in response to this hail makes him into a subject insofar as he recognizes that "the hail was 'really' addressed to him." He is the subject of the law insofar as he acknowledges this address, one that takes place without further need of explanation.[32] "Experience shows that the practical telecommunication of hailings is such that they [the hailings] hardly ever miss their man: verbal call or whistle, the one

29. *Ibid.*, 127.
30. For a complete list of so-called ISA's see *Ibid.*, 137.
31. *Ibid.*, 162.
32. He does not need to make an outward sign of this acknowledgement. One can, say, ignore a policeman or pretend not to hear while still knowing that one is being addressed.

hailed always recognizes that it is really him who is being hailed."[33] The obviousness of the fact that one is being hailed can only take place within a system of rules governing recognition and the performance of recognition — that is, ideology.

There is, of course, no ideology outside of the practices that constitute recognition. It is they, and not some external cause, that form an ever-changing ideological system. Implicitly acknowledging this fact, the city symphony seeks to construct the ideological foundations of a polis based on mutual recognition — that is, mutual hailings. City symphonies abound with scenes of groups hailing one another — calling and responding, acknowledging each other's presence within a seemingly unified space. This space may be that of the city, though it may also be unbounded. Thus Ruttmann's *Melody of the World* (1930), a sound symphony film commissioned by an industrial shipping firm, shows different and diverse groups from across the globe responding to each other's calls. Of course, this is the product of editing. The calls, cries, music, and noise of one part of the world is matched to similar sounds in another, or else they interrupt one another, through the montage editing of sound film. The effect, however, constructs the impression of the globe as a polis of mutually recognizable and understandable sonic practices: We all sing, laugh, cry, scream, play music, make noise, etc.; we can recognize these sounds and respond in kind. That the film was commissioned by a shipping firm points to an underlying ideology of global capitalism that persists to the present day: the idea that the free flow of goods, expressions, sounds, and ideas all participate in the same project of expanding freedom, harmony, and global peace.

If in Ruttmann's film, implicit hails from across the globe are recognized and rendered understandable to one another, then in Dziga Vertov's first sound film, *Enthusiasm*: *Symphony of the Donbass* (1931) — a film that follows the production of coal and electricity in the Donbass

33. Althusser, "Ideology and Ideological State Apparatuses," 118.

region of Ukraine — this activity becomes explicit, albeit with different political ends in mind. In one scene, coal workers are shown streaming into a movie theater where they watch images from across the Donbass. These are presented through a counterpoint between sound and image (a common feature of sound symphony films). A worker on screen emits the sounds of a telegraph, whistles alternate with the sounds of cranking machinery. As the din reaches its climax, the word "shortage" ["Прорыв"] flashes on screen, alternating with the image of the worker who is clearly imploring the audience. At this moment, the noise suddenly ceases, the audience stands, and the whole theater proceeds to sing the "Internationale." This segment is rendered in synchronized sound, presenting a sound-image of unity. The audience has heard the call from the worker speaking not with his own voice, but with the voice of machinery and the telegraph.

Such scenes of what Althusser calls "theoretical theater" abound throughout *Enthusiasm*, which presents the Soviet Union as a vast interrelated network connected by electricity, sound, and image. These hailing, moreover, extend mutual recognition to machines as well as humans. This feature is already apparent in the above scene insofar as workers in the theater respond not only to a voice — one that hails them occasionally through an image of a loudspeaker — but also to the sounds and groans of machines short on coal. In another scene, shock workers stand at a podium and make pledges to fulfill quotas ahead of schedule; in response conveyor belts spring into action. The result is a fully integrated sensory environment that John MacKay has called Vertov's "sensory agora" — a "surrogate public space…wherein the perceptual worlds of different segments of Soviet society — as registered by the camera and sound recording apparatus — could at once be experienced, contrasted, compared, and ultimately grasped as familiar elements of an expanding sensorium."[34] Picking up on a similar idea, another scholar,

34. John MacKay, "Disorganized Noise: *Enthusiasm* and the Ear of the Collective," in *KinoKultura* 7 (2005): Intro:12. http://www.kinokultura.com/articles/jan05-mackay.html.

Devin Fore, has argued that Verov's cinematic practice constructs an alternative public sphere in which the political is not merely that which may be discussed through language, but rather extends to a variety of non-linguistic "discourses" such as machine sounds and factory whistles as well as to their non-human emitters.[35] Taking my cue from studies like these, I argue that the city symphony develops public space not just through the presentation of a shared sensory environment, but through the mutual recognition of heterogeneous spaces, sounds, and practices of everyday life (e.g. labor). Such a practice starts with Avraamov's *Symphony of Sirens*, is globalized by Brecht's *Lindbergh's Flight*, and returns in simultaneously local and global modes to Vertov's *Man with a Movie Camera*. As I hope to show, this shared public space is not as egalitarian as MacKay and Fore make it appear; rather, it is one fraught with tension between the egalitarian and totalitarian tendencies surrounding the function of the city symphony as a hailing apparatus.[36]

To illustrate this tension, it is important to point out how the principles by which city symphonies are constructed. As I mentioned above, there is an element of strict control in all city symphony environments. Recognition is not only facilitated by the apparatus, it is manufactured: spaces are related to one another through montage; calls and responses are calibrated; singing takes place on cue or according to certain parameters. The egalitarian harmony of the city symphony can only be maintained through some form of conducting that must either obscure itself or present itself as a transparent and openly acknowledged aspect of the composition. With regard to the latter option, a number of scholars including MacKay and Fore, but also Giorgio

35. Devin Fore, "Metabiotic State: Dziga Vertov's *The Eleventh Year*, in *October* 145 (2013): 4.
36. I am, of course, testing MacKay's and Fore's arguments against a more general field of city symphonies, yet the results apply to Vertov as well.

Agamben and James Donald,[37] have relied on Viktor Shklovsky's notion of "laying bare the device" as a way to mitigate some of the totalitarian implications of these works. For Shklovsky, laying bare the device takes place through a disruption of language or cognition that forces a critical attitude on the part of the reader or spectator. Taking their cue from this idea, scholars have noted how fast intercutting, counterpoint, and non-narrative approaches generally blunt the totalitarian force of the image, music, or synchronized sound. While the latter are designed to lull the viewer or listener into a false sense of continuity, the former disrupt the presentation of events, thereby causing the audience to reflect on the medium and presentation of information. Similarly, the literal baring of the device through the depiction of how it functions — as in *Man with a Movie Camera* or Brecht's *Lindbergh's Flight* — is meant to facilitate an understanding of the apparatus and thus mitigate the effects of control through cults of images or personalities.

While this is partially true, it nonetheless covers up the inherent tension of city symphonic works, particularly those with egalitarian and Marxist sympathies. It is a disservice to these works if we do not examine these tensions and uncover what they are about. As I hope to show, the city symphonic apparatus reveals as much as it conceals. Fast intercutting, while it disrupts the narrative flow of events, is also a mode of violence and control. It delivers shocks that are meant to awe the spectator in the same moment that they connect heterogeneous spaces into a greater community. The audial practices of the city symphony offer a means to re-evaluate how it functions as an apparatus of community building. It is, to be sure, committed to an egalitarian politics: a conception of a community of listeners who have every right to be active participants, of spaces and practices who have every right hail one another and be heard. At the same time, the construction of this community must be orchestrated in a ways that threaten

37. See Giorgio Agamben, "What is an Apparatus," in *What is an Apparatus and Other Essays*, tr. David Kishik and Stefan Pedatella (Stanford: Stanford University Press, 2009).

violence (in the form of noise) or otherwise control the spectator through audiovisual modes of scientific management.

**V. Failure**

How does one evaluate whether a city symphony has failed? If it does, does it fail as an aesthetic work, as a political project, or both? What, by contrast, constitutes its success? All the city symphonies in this study, to a certain extent, fall short of their intended political goals: they struggle to reconcile the demands of their egalitarian and consolidating political projects. On the one hand, they gather the polyphony of voices in the modern polis; on the other, they must somehow unite them in a single piece of music. Like many great musical works, the city symphony must provide resolution for the dissonances it sets in motion — even if this "resolution" is no more than a workable, overarching structure for the presentation of dissonance as such. As an ideological state apparatus — one that stages a model polis — the city symphony facilitates a process by which the political elements that constitute dissonance — heterogenous spaces and cultural practices, conflicting subaltern groups, warring political factions — recognize each other as subjects within a unified political arena. The city symphony's aesthetic — its bridging of disparate sites and sounds — attempts to construct and govern this ideological space. Yet, quite often, it fails to achieve this goal on its own terms. Its totalizing project may be incapable of balancing the demands of the one and the many, or it may fail to abolish this distinction outright. Its emphasis on unity frequently leaves loose ends while its emphasis on heterogeneity often undermines its totalizing commitments.

As I hope this study will show, polyphony, dissonance, noise and other sound-related concepts are more than just helpful metaphors for describing the difficulties of the city

symphony's political project; they are its primary modes of appearance. The political successes and failures of the city symphony manifest themselves through its aesthetic formal concerns because these are the primary tools by which it manages the polis. For the city symphony, form is as political as the structural layout of a city map. Its ability to address the political problems facing the city is a question of — among other things — success or failure. In this regard, to borrow a phrase from Franco Moretti, I wish to characterize city symphonies as "semi-failures." Moretti uses this term to describe "modern epics" such as Goethe's *Faust*, Melville's *Moby Dick*, and Joyce's *Ulysses* insofar these struggle to develop a unifying form or narrative structure that embraces the fragmentary multiplicity of modernity. For Moretti, modern epics "reveal a kind of antagonism between the noun [epic] and the adjective [modern]: a discrepancy between the totalizing will of the epic and the subdivided reality of the modern world."[38] This same discrepancy appears in the city symphony through conflicts between egalitarian and totalitarian political conceptions, stimulation and control, or fragmentation and unity. The attempts to address these conflicts, I argue, are only partially successful and this partial success — due both to the city symphony's own failings as well as the contingencies of history — is a fundamental feature of city symphonic works.

Moretti conceives of the "totalizing will of the epic" in Hegel's terms. The Hegelian conception of the epic, he points out, is based on three interrelated theses. First, the epic is a story that, according to Hegel, "acquires as its object the occurrence of an action which must achieve expression in the whole breadth of its circumstances and relations…" That is to say, the epic action must come through all the aspects of the work; incidents in the work may not be superfluous to the epic action: "In Homer," Moretti points out, "even the hero's *inactivity* — Achilles in his tent — produces practical consequences of great importance: it, in its own way,

38. Franco Moretti, *Modern Epic*: *The World System from Goethe to García Márquez* (London: Verso, 1996), 5.

action." Second, this action emerges "as a rich event connected with the total world of a nation and epoch." Incidents in the epic action are not merely internal to the work but are related to historical, political, and cultural circumstances of an era. They allow this epoch to emerge as a totality. Third, in this totality, "[e]verything that later becomes firm religious dogma or civil and moral law still remains a living attitude of mind, not separated from the single individual as such."[39] The totalizing epic action, in other words, manifests itself through an individual personality — a hero.

This last idea, according to Moretti, poses a problem for the epic in modern times since the role of the hero is usurped by that of the State. "[O]nce 'State life' becomes established, the unity of universal and individual dissolves: 'the ethical and the right' cease to 'depend exclusively upon individuals' and become objectified in laws and the state apparatus."[40] The modern epic's failure, for Moretti, consists precisely in the attempt to overcome this displacement of the epic as a viable form for embodying the relations that constitute a nation or epoch. Another way of expressing this idea is to say that the epic embodies an idea of community that, over the course of history, becomes the basis for civil and moral law. In modernity, this community realizes itself in the structures of the State. If this is the case, then "between the epic and modernity an inversely proportional relation obtains. Where there is one, the other cannot be — and vice versa."[41] And yet there *are* modern epics. At the same time as Hegel was giving his lectures on aesthetics, Goethe was busy completing *Faust* — a work in which "the hero ranges freely across the 'grand world,' loudly proclaiming his desire to be at one with all humanity." This desire to unify a community in heroic action — and the inability to do so — is the locus of the modern epic's failure. "Digressions," as Marjorie Perloff puts it, "become the main purpose

39. *Ibid.*, 12.
40. *Ibid.*
41. *Ibid.*

of the epic action. The construction of national identity is no longer temporal or historical, as in classical epic, but geographical."[42] Faust wanders the world in search of humanity yet manages only to seduce Gretchen and narrowly avoid being killed by her brother (two actions that do not necessarily require demonic intervention).[43] This "geographic" construction seeks to encompass a community but fails to *act* accordingly. What's left are a series of experiments such as stream of consciousness narration and montage construction that attempt to render the fragmentary complexity of modern life.

The crucial difference between the epic and the city symphony, of course, is the general absence of an individual hero in the latter. In the city symphony, the place of the epic hero is taken up by the geographic construct of the polis — that is, of the spatialized community. This may be demonstrated with regard to the only city symphony in this study that may be said to have an epic hero in the "modern" sense of the term — Brecht's *Lindbergh's Flight*. In this piece of what Brecht would later call "epic theater," Brecht's hero, Charles Lindbergh, seeks to unite all humanity through the action of his transatlantic flight. Lindbergh, however, is not a hero in the 'classical' sense, for his construction of a community is neither temporal nor historical. It is, rather, spatial and — what's more — immediate: the flight within the diegetic structure of the play takes approximately 34 hours; the radio transmission which is its real life correlate is instantaneous. The community that results is not brought together by a shared history that the play synthesizes, but by collective participation in a single spatial project of overcoming borders. Lindbergh thus takes the modern epic's geographic construction of community to its literal extreme — to the point where Lindbergh himself is no longer a hero but a mode of transportation, a vehicle. The pilot and his inseparable *Spirit of St. Louis* form an apparatus into

42. Marjoire Perloff, "Review: Modern Epic by Franco Moretti," *Electronic Book Review*, Winter 1996/7, http://marjorieperloff.com/reviews/franco-moretti/
43. *Ibid*.

which listeners of the play literally enter as performers. The play's famous refrain, "Here is the apparatus / climb on!"[44] ["Hier ist der Apparat / Steig Ein!"] is an invitation to listeners to climb aboard. They are brought together in and by means of this apparatus — whether its an airplane or radio — as a tool for expanding geographic borders and broadening community.

Most importantly for Brecht, Lindbergh is not an epic hero in the classical or perhaps even modern sense since he is purposefully devoid of all character and personality. Faust and Bloom may be inactive wanderers, but they nevertheless have recognizably human traits. Even the most superhuman of epic heroes have some human flaw. Lindbergh, by contrast, is an empty hull. Performers are instructed to render his lines dispassionately, without emotion, and without identifying with the hero. For Brecht, this kind of radically spatial construction — one in which the character is primarily a vehicle for bringing people and spaces together — is a response to the cult of the hero — a cult that Brecht associates with fascism. It is, furthermore, part of the city symphony's tendency to turn human masses and spaces into the proper subjects of an art work. Hence, the hero of Vertov's *Man with a Movie Camera's* defining activity is the connection of sights, sounds, and spaces from across the Soviet Union, whereas Avraamov's *Symphony of Sirens* and Ruttmann's *Berlin, Symphony of a Big City* have no heroes to speak of except the structures that make up the polis. Through these structures the city symphony attempts to conceive of an aesthetically embodied community that goes beyond the epic hero. It is an attempt, in other words, to think the epic without the hero — without the need for an action-driven personality who binds a community.

The question, then, is whether the radically geographic construction of the city symphony — its emphasis on place over person — avoids the pitfalls, the semi-failures, of the modern epic.

44. Bertolt Brecht, *Der Flug der Lindberghs: Ein Radiolehrstück für Knaben und Mädchen,* in *Bertolt Brecht*: *Werke* (Berlin: Suhrkamp, 1988), 3:9.

The answer, I believe, is no. Indeed, it is precisely the failures of the city symphony — the inevitable tensions in the way it uses city structures and musical forms to manage its sonic and spatial materials — that makes it interesting. By and large, the city symphony's radical geographic construction exacerbates the tensions of the modern epic. Its attempt to unify in a near-instantaneous space that which was formerly held together in a single personality leads to irresolvable dissonances. As I hope to show, these dissonances animate the city symphony. It is the attempt to work through the conflicts of structuring a unified polis that characterizes the city symphony's movements. This is not say, however, that these works fail outright, or that their failures reflect the inadequacies of various ideological systems. Rather, I hope that throughout this dissertation we may look at their flaws in a manner that Jack Halberstam describes in *The Queer Art of Failure*: "Under certain circumstances failing, losing, forgetting, unmaking, undoing, unbecoming, not knowing may in fact offer more creative, more cooperative, more surprising ways of being in the world."[45] When city symphonies fail, they do so in a way that points to a mode of art that goes beyond heroic action, nation, personality, and cult — one that seeks to reconcile the age-old contradiction between the one and the many. This study hopes to map the failing of city symphonies as productive tensions. While not shying away from their uncomfortable methods and totalitarian associations, it aims to also show the ways in which the city symphony allows us to rethink space, sound, and community.

45. Jack Halberstam, *The Queer Art of Failure* (Durham: Duke University Press, 2011), 2.

## VI. A City Map

The city symphony covers the geographic distance of the epic in an instant. The relationship between spaces is its subject matter. Sound, whether it is musical structure, physical frequency, or cultural product is its primary mode of organizing and managing the community. The city symphony, as I argued above, is an expansion of borders beyond the public concert hall — a *synphonia* of sounds and spaces; it is an attempt to regulate the political environment of the polis by means of sonic phenomena such as noise. Its novel conceptions of sound and space are simultaneously utopian and practical. Often, it is through an intense focus on the material quality of these phenomena that it realizes its most utopian schemes. The city symphony is, furthermore, an apparatus; it facilitates a society in which heterogeneous peoples, cultures, and even machines hail one another in mutual recognition. This process of interpolation, as we have seen, has both totalitarian and egalitarian possibilities. Lastly, with regard to its attempt to balance these possibilities — particularly as a conflict between the one and the many, unity and fragmentation — the city symphony is a semi-failure. It cannot reconcile the tensions it sets in motion. This fact, however, does not mean that the city symphony is without value. Quite the contrary: its struggle to reconcile these tensions points to novel conceptions of the polis that go beyond the trajectories and wanderings of a single hero.

How to organize a study of the city symphony? In what follows, I will examine this genre in terms of its expansion of borders. The first chapter investigates the local level — the city-specific city symphony — through Arseny Avraamov's *Symphony of Sirens*. By far the most avant-garde work in this study, Avraamov's 1922 symphony deployed montage techniques in a live orchestration of the factory and industrial sounds of Baku, Azerbaijan. This composition was part of an attempt to solidify the burgeoning Soviet Union's hold on the Caucuses through a

musical reenactment of the October Revolution. I place this reorganization of Baku's industrial spaces under the rubric of what I've called "ecstatic materialism" — the idea that everyday sounds and spaces may be reorganized in the sudden realization of a transformed future, one that breaks all ties to the past (hence, ecstatic). At the same time, in re-organizing Baku's space in accordance with this ecstatic vision, Avraamov's symphony encounters a problem. The actual lived spaces that constitute Baku — their spatial layout as well as their history — resist his unifying conception. It is precisely this inability to reconcile the heterogeneous lived spaces of Baku within a single work that constitutes the city symphony's failure. In retrieving this audial history, I seek to do more than just present a unique, understudied, and highly idiosyncratic work of art. Rather, I suggest that many of the political issues the *Symphony of Sirens* addresses through local specificity — the relationship between sound and space as well as listener and performer — are present in a work that conceives of global relations on a similar basis — namely, Brecht's 1929 *Lindbergh's Flight* (Chapter Two).

Though not concerned with a particular city — least of all Baden-Baden where it was initially performed — Brecht's radio play nevertheless manifests on a global scale many of the features of city symphonies considered in this study. Brecht's play aimed to create a musical performance that was global in nature, both in terms of its subject matter — a transatlantic flight — and its medium — radio. Through the latter, Brecht sought to connect listeners and performers as active participants in a musically integrated polis. I examine this musical state as the city symphony's continuation of a tradition of expanding performance spaces out into the world — a tradition founded in Richard Wagner's notion of the *Gesamtkunstwerk*. As I pointed out above, the *Gesamtkunstwerk's* commitment to the transgression of borders is an integral feature of the city symphony. For Wagner, it was the primary means of building a global cultural

and political society based on the model of the city state *par excellence* — Athens. Brecht's *Lindbergh's Flight* attempts to address the totalitarian tendencies in Wagner's notion — specifically its emphasis on drama and the psychological identification of the audience with an epic hero — while nevertheless preserving its commitments to an egalitarian community. It fails to do so, however, insofar as its own structures exacerbate rather than resolve the tensions between egalitarianism and totalitarianism characteristic of the Total Work of Art.

Chapter Three is a synthesis of the previous local and global moments through a re-examination of two of the most famous city symphony films — Walter Ruttmann's *Berlin, Symphony of a Big City* (1927) and Dziga Vertov's *Man with a Movie Camera* (1929). These films deploy the local specificity of Avraamov's *Symphony of Sirens* yet maintain the global commitments of Brecht's *Lindbergh's Flight*. This feature is characteristic of film itself — a medium that could capture and combine spaces from disparate regions in a manner that seemingly constructs a unified local space. Vertov's film, for instance, combines footage from four cities — Moscow, Odessa, Kiev, and Kharkiv — in the construction of a single city. As I pointed out earlier, both films are generally understood in terms of Simmelian theories of the makeup of the metropolitan individual. On such a conception, the city symphony film was a means of helping the modern spectator manage the shocks of daily life. By contrast, in this chapter, I locate both films in histories and theories of sound as an instrument for the construction and management of a community. In this regard, I argue that these ostensibly silent films "sound the inaudible" — their visual tracks contain subsumed forms of sound that regulate the political environments of their respective poleis. As paragons of the city symphony genre, they are critically engaged with the audial practices and issues of the previous two chapters. However, in their attempts to manage the complexities of city life, both films succumb to an

over-reliance on the organizing capabilities of the apparatus. Attempts to render the functions of this apparatus transparent to the audience reveal as much as they conceal. As such, both city symphonies fail — albeit in different ways — with regard to their ambitions for organizing the polis.

## I. Baku 1922: The *Symphony of Sirens* and the Symphonics of Urban, Industrial, and Inter-Ethnic Space

### Introduction

On 7 November 1922 vessels from the Caspian flotilla assembled in the harbor of Baku, a port city on the Caspian Sea in what is now the Republic of Azerbaijan.[1] Though parts of the Turkic-Muslim majority country still bristled at Soviet power and armed bands unleashed by the havoc of civil war still roamed the countryside, the flotilla had not anchored to lay siege to the city. On the contrary, it had gathered to partake in a mass spectacle commemorating the fifth anniversary of the October Revolution. Conceived and conducted by the Futurist composer, Arseny Mihailovich Avraamov (1886-1944), the *Symphony of Sirens* [*Симфония гудков* or *Гудовая симфония*], as the spectacle was called, constructed a montage-like interaction of military, industrial, and human sounds across Baku's ethnically diverse districts, docks, factories, and squares. These sounds included those of ship canons, machine guns, artillery batteries, foghorns, hydroplanes, factory sirens, crowds numbering in the thousands, and a specially designed steam-whistle organ capable of belting out "The Internationale" and "La Marseillaise" in contrapuntal harmony. The city symphony radically altered Baku's industrial and oil-derricked landscape into both orchestra and auditorium, relying on the natural acoustics of the surrounding hills to re-sound the Bolshevik narrative of the October Revolution. Its deafening and awe-inspiring noise rearranged the spatiality and temporality of the city, transforming the oftentimes fraught relationship between its religiously and ethnically divided working classes — consisting of Azerbaijani and Iranian Turks, as well as Georgian, Armenian, and Russian Orthodox Christians — into a symbol of proletarian unity and Soviet power. In this regard, as a number of scholars have pointed out, the symphony belongs to a sub-genre of mass spectacles, such as Nikolai

1. It is worth noting that the year 1922, according to Michael North, is the annus mirabilis of modernism. The year marked the publication of both Jame's Joyce's *Ulysses* and T.S. Elliot's *The Waste Land*. See Michael North, *Reading 1922*: *A Return to the Scene of the Modern* (New York: Oxford University Press, 1999).

Evreinov's *Storming of the Winter Palace* (1920), intended to rekindle the communal spirit of the Russian Revolution through the application of Futurist and Soviet Taylorist ideas concerning the "radical unity of the arts, technology, human labour and urban spaces."[2] In this chapter, I argue that the symphony's reconstruction of social and political space has the character of what I've called "ecstatic materialism:" the use of present-day urban spaces and (in principle) mechanically reproducible sounds as aesthetic raw materials for an ecstatic construction of the new.

The use of Baku's districts, factories, docks, and town squares as aesthetic materials follows a quote Avraamov cites as an inspiration for the *Symphony of Sirens* in his 1924 account of the mass spectacle: "Enough of penny truisms / Erase the old from your heart / The streets are our brushes / The squares are our palettes" ["Довольно грошевых истин — / из сердца старое вытри: / уливы — наши кисти, / площади — наши палитры"].[3] This quote, from Mayakovsky's 1918 poem, "Order for the Army of Art" ["Приказ по армии искусства"],[4] captures some of the main elements of ecstatic materialism. On such a conception, streets may be pushed around like paints on a canvas. A new space is then created — one that has broken all ties to the past. While such an idea does not require mechanical reproduction to take effect, its conception and implementation is certainly accelerated by the possibility. The idea recalls a cinematic project. Indeed, it reflects Vertov's concurrent development of the city symphony film in his Kino-Eye newsreels — another instance of rearranging spaces. This points to the fact that the sought after, socially-engaged art of the time was not cinema *per se* — nor any other art

2. Delia Duong Ba Wendell, "The 1922 'Symphony of Sirens' in Baku, Azerbaijan," in *Journal of Urban Design* 17,4 (2012), 555. For a similar analysis see Adrian Curtin, *Avant-garde Theater Sound* (New York: Palgrave, 2014), 186–198. Wendell's article is the only one that situates the *Symphony of Sirens* in the context of Baku's ethnically and religiously divided spaces.
3. Quoted in *Авраамов А. М.* "Симфония гудков." Художник и зритель. 1924. No. 1. A translation can be found in Arseny Avraamov, "Symphony of Sirens," in *Symphony of Sirens*: *Sound Experiments in the Russian Avant-Garde (1908-1942)*, trans. Deidre MacCloskey, ed. Miguel Molina Alarcón, 70. NB: The document is a translation from Spanish of the Russian original. All translations from the Russian are my own unless otherwise noted.
4. *Маяковский В.В.* "Приказ по армии искусств." 36-39. Для голоса. Берлин: Государственное Издательство РСФСР, 1923. С 33.

centered around a so-called "new medium" — but rather the manipulation of space. For Mayakovsky, cinema was not an art in this regard, but a tool. In 1913 lecture on contemporary theater, he proclaimed, "art produces elevated images while cinema, like the printing press for the book, multiplies and distributes them to the most remote and distant parts of the world."[5] An attack on cinema, he continued, would be as ludicrous as an attack on a typewriter. Cinema forces a re-thinking of what is art, what is theater. This new art takes advantage of the possibility of multiplying and distributing space, though not necessarily in the manner that Walter Benjamin would later envision. Avraamov's symphony, I argue, represents a problematic attempt to realize such a art of space — one that is complicated by the fact that the sounds and spaces he seeks to rearrange resist his attempt to symphonically compose them.

An illustration of the ecstatic quality of this spatial art may be gleamed from Roman Jakobson's account of Mayakovsky's poetry on the occasion of the latter's death in 1930. For Jakobson, the salient feature of Mayakovsky's poems is their opposition to the everyday (Russian = *byt*), characterized as a "stabilizing force of an immutable present, overlaid, as this present is, by a stagnating slime, which stifles life in its tight, hard mold."[6] In accordance with his formalist background, Jakobson conceives of this everyday in linguistic terms. The everyday is a language, a syntax that Futurist poetry ruptures, unleashing possibilities for the construction of a new world that is both material and ecstatic. He speaks of this ecstatic-material world in terms of the spirit and the body — the word, on such a conception, being flesh. For Mayakovsky, Jakobson writes, "there can be no resurrection of the spirit without the body, without the flesh itself…Mayakovsky's dream is of an everlasting earth, and this earth is placed in sharp

5. Vladimir Mayakovsky, "The Relationship between Contemporary Theater, Cinema, and Art," in *The Film Factory*: *Russian and Soviet Cinema in Documents 1896-1939* (London: Routledge, 1988), 36.
6. Roman Jakobson, "On a Generation that Squandered its Poets," in *Language and Literature*, eds. Krystyna Pomorska and Stephen Rudy (Cambridge: The Belknap Press of Harvard University, 1987), 277.

opposition to all superterrestrial, fleshless abstraction."[7] That is to say, Mayakovsky's utopian vision must be realizable in *this* world. At the same time, this resurrection of the material body cannot be realized in the temporal succession of generations: "Mayakovsky never recognized his own myth of the future in any concrete child; these [sic, children] he regarded simply as new offshoots of the hydraheaded enemy [*byt*]." Jakobson then adds: "We recall that his youthful poem 'A Few Words about Myself'…begins with the line 'I love to watch children dying.'"[8] In other words, the future must have a material form of embodiment even as it severs all connections to the present. It must be both ecstatic and material — a child that is kin to no one.

In this sense, Mayakovsky's messianism is even more radical than Christianity's. Whereas Christ has a material connection to humanity, Mayakovsky's future progeny have none. At the same time, while Christ ascends to heaven with the promise of an eventual return, Mayakovsky's children stay grounded to the earth. This idea of an orphaned present, no doubt, brings to mind terrifying political periods as well, such as Stalin's Five Year Plan or Mao's Great Leap Forward. At the same time, this conception of the everyday as a stabilizing force in opposition to an avant-garde poetics that seeks to rupture it (thereby unleashing radical potentials toward a transformed future) also appears to varying degrees in a range of modernist and avant-garde ideas, from Viktor Shklovsky's notion of estrangement [остранение] as a renewal of the everyday to Taylorist visions of the human body reborn as a machine.[9] Here, however, we must be careful, for there are not one but two senses of the everyday that concern the Russian avant-garde: the first is the bourgeois everyday of *byt*; the second the everyday of proletarian working practices and spaces. Jakobson's *byt* is the everyday of the petty bourgeoisie, of NEP men and

7. *Ibid.*, 287.
8. *Ibid.*, 288.
9. See, for instance, Viktor Shklovsky, "Art as Device," in *Theory of Prose*, trans. Benjamin Sherr (Normal, Il: Dalkey Archive Press, 1990), 1-15. For analysis Soviet Taylorism see Julia Vaingurt, *Wonderlands of the Avant-Garde*: *Technology and The Arts in Russia of the 1920s* (Evanston: Northwestern University Press, 2013).

women whom Mayakovsky caustically derides in plays like the *Bedbug* (1929).[10] The proletariat, in turn, are not merely those oppressed by the force of *byt*, they are an active principle in its rupture. Jakobson cites a rough draft of Mayakovsky's poem, "150,000,000": "To be a bourgeois does not mean to own capital or squander gold. It means to be the heel of a corpse on the throat of the young. It means a mouth stopped up with fat. To be a proletarian doesn't mean to have a dirty face and work in a factory: it means to be in love with the future that's going to explode the filth of the cellars — believe me."[11] Jakobson conceives of the proletariat in this quote, however, as serving a purely symbolic role. To struggle against the "unbearable might of *byt*," he writes, "an uprising as yet unheard of and nameless must be contrived. The terms used in speaking of the class struggle are only conventional figures, only approximate symbols, only of the levels: *the parts of the whole*."[12] In this sense, for Jakobson, the class struggle was the most recent manifestation of a much longer battle between nameless forces of stability and rupture that constituted the experience of life in Russia. This battle, for Jakobson, was not specific to the Russian Revolutionary moment, but played itself out through Russian history.

The fact that he was writing in 1930 — after the Revolutionary fervor of 1917 had long since settled — partially explains Jakobson's assessment of Mayakovsky's poetry. From this vantage point, the oppositional terms of class conflict could be understood as manifestations of a greater dialectical struggle between rupture and stability. By contrast, in the years surrounding the October Revolution (1917-1922) — prior even to the official formation of the Soviet Union — phenomena associated with quotidian proletarian practices (the second type of everydayness) were themselves conceived as in some sense containing a dynamic force that could be opposed to *byt*. This force was latent in the noise of machines, the swing of hammers, the fire furnaces,

10. Vladimir Mayakovsky, "The Bedbug," in *The Bedbug and Selected Poetry*, trans Max Hayward and George Reavey (Bloomington: Indiana University Press, 1960), 271.
11. Roman Jakobson, "On a Generation that Squandered its Poets," 279.
12. *Ibid*.

etc. By re-arranging these phenomena as aesthetic materials, avant-garde artists — especially those associated with applied arts movements such as constructivism — sought to channel the revolutionary energy of the proletariat — its "dirty face" and "factory work" — into aesthetics. This effort was considered necessary in order to to both expunge the bourgeois cultural order within the Soviet State — an order that continued to linger, for avant-garde artists, at the theater and symphony hall — as well as expand the international socialist project beyond its borders. The *Symphony of Sirens* was part of both efforts. More than just "conventional figures," for the *Symphony of Sirens,* proletarian practices of everyday life, particularly insofar as they manifested themselves as the noise of factory work, *were* the force that would destroy *byt* by literally ripping through and rearranging the layout of the city.

In this regard, Baku posed a particular challenge, one that has been little accounted for within the largely European borders of the avant-garde — namely, how to transform the dynamism of Baku's religiously and ethnically diverse spaces into a proletarian force. Baku's spaces were anything but stable; oftentimes they were downright chaotic. As Audrey Alstadt-Mirhadi puts it, "it was as if the industry of Pittsburgh and the frontier lawlessness of Dodge City had been superimposed on Baghdad."[13] Districts such as Black Town [Черный Город], named after the oil that spewed from its derricks, bore the marks of the city's industrial expansion of the 1870s. Other districts, such as Armenikend, which saw the massacre of 15,000 Armenians during the September Days of 1918, bore the marks of protracted ethnic conflicts.[14] A music teacher in

13. Audrey Altstadt-Mirhadi, "Baku: Transformation of a Muslim Town," in *The City in Late Imperial Russia*, ed. Michael F. Hamm (Bloomington: Indiana University Press, 1986), 284.
14. Ronald Grigor Suny, *The Baku Commune 1917-1918*: *Class and Nationality in the Russian Revolution* (Princeton: Princeton University Press, 1972), 214-234. On ethnic conflict in Baku and Azerbaijan also see Tadeusz Swietochowski. *Russia and Azerbaijan: A Borderland in Transition* (New York: Columbia University Press, 1995) and Audrey L. Altstdt, *The Azerbaijani Turks*: *Power and Identity under Russian Rule* (Stanford: Hoover Institution Press, 1992).

Baku's Communist Party High School prior to the symphony,[15] Avraamov would have been keenly aware of the history of these spaces. As a composer, he conceived of the tensions they contained in terms of sound, particularly as "noise" that had to be re-channeled into a form of collective experience all could share. Lastly, as a Marxist who had been active in the Bolshevik Party prior to the Revolution, he understood this noise primarily as the product of material and economic relations of exploitation — as the product of "anarchic tendencies in the very system of [capitalist] industry" ["анархические тенденции в самой системе производства"].[16] The goal of the symphony was to convert this noise, in accordance with Alexei Gastev's famous maxim, from a "call to slavery" ["Зов неволи"] to a "song of the future" ["песня будщего"] — or, in Avraamov's words, from a call to slavery into "a worthy form of musical embodiment" ["достойную форму музыкального воплощения"].[17] The noises of war and industry in the *Symphony of Sirens* have this selfsame double significance. As I hope to show, their conversion is important not least because it demonstrates the city symphony's ability to structure a new kind of community through a radical re-conception of sound and space. In addition, it reveals the

15. Andrei Smirnov, *Sound in Z* (London: Koenig Books,2013), 30. Avraamov was also a Narcompros Commissar in Dagestan prior to the symphony. Narcompros stands for Peoples Commissariat of Enlightenment. In Dagestan (1921), according to a 1943 letter he wrote to the Central Committee of the Communist Party [ЦК ВКП(Б)], Avraamov ran afoul of the Communist Party leadership for changing his name to Arslan Ibrahim ogli Adamov. The name was given to him by a local mullah who also recommended that Avraamov shave his head and grow a beard as a way of blending in with the local population in order to collect folksongs. Before his name change, Avraamov remarks that the local food vendors went so far as to spill milk on the floor rather than sell it to him. The name change (along with a mandate from the mullah), however, "worked a *complete miracle*: everyone welcomed me like a desired guest. They sat me in a place of honor, fed me, gave me water, sang and played songs for me, they even had their women sing and dance and play the harmonica…" ['мандат…действительно *сотворил чудо*: меня принимали как желанного гостя, сажали на *почетное место*, кормили, поили, песни мне пели и играли, и даже *женщин заставляли* петь и плясать и играть на гармонике"]. This autobiographical detail points to the fact that Avraamov was not an outsider to the ethnic and religious tensions that existed in the spaces where he operated. The idea that the *Symphony of Sirens* was not directly intended to address these tensions would be like saying that a similar spectacle put on by a U.S. officer in modern-day Baghdad was not intended to address problems arising from ethnic conflict there. The letter, along with a number of other useful documents and private correspondences may be found in *Румянцев С.* Арс Новый, или Дела и приключения безустального казака Арсения Авраамова. Москва. 2007. С 10-36.
16. *Авраамов А. М.* Симфония гудков. Горн. 1923. Кн. 9. С 109.
17. *Ibid.*

challenges of structuring a community in this manner, particularly insofar as sounds and spaces resist the attempt to unleash and harnesses their "anarchic tendencies."

In what follows, I examine the *Symphony of Sirens's* application of ecstatic materialist principles in terms of its novel use of space and sound. Part one examines the symphony's city specificity — its use of Baku's spaces as brushes and palettes. Following the work of D.D.B. Wendell, I suggest that Baku's spaces played an integral role in making the symphony possible in terms of their physical sonority, their ethno-religious makeup, and their symbolic significance. At the same time, I wish to complicate Wendell's thesis through an examination of differences between two sets of instructions for the symphony, one published in the *Baku Worker* [Бакинский рабочий] (1922) shortly before the performance, the other published a year later in the *Proletkult* journal *Gorn* [Горн] (1923).[18] English-language scholars have thus far only cited a somewhat impoverished translation of the *Gorn* instructions published in the Sound Studies volume, *Wireless Imagination*: *Sound, Radio, and the Avant-Garde.*[19] Another short article — published in the journal *Artist and Viewer* [Художник и зритель] (1924) and recently translated in Miguel Molina's volume of sound documents from the Russian avant-garde (2003) — also provides information about the symphony, as well as its failed performances in Petrograd (1918), Nizhny Novogorod (1919), and Moscow (1923).[20] Differences between the two scores challenge the idea that the instructions are an exact representation of events as they occurred in Baku.[21] Rather, the significance of these events changes depending on their timing and placement — that

18. Both texts are reprinted side by side in *Румянцев.* Арс Новый. С 81-83. In the appendix to this chapter I have provided a facing translation of both documents. I have obtained a copy of the original *Gorn* instructions but am still searching for an original copy of the *Baku Worker*.
19. Arseny Avraamov, "The Symphony of Sirens," in *Wireless Imagination*: *Sound, Radio, and the Avante-Garde*, trans. Mel Gordon. eds. Douglas Kahn and Gregory Whitehead (Cambridge: MIT Press), 245-252.
20. Arseny Avraamov, "Symphony of Sirens," in *Symphony of Sirens*: *Sound Experiments in the Russian Avant-garde (1908-1942)*, 70.
21. D.D.B Wendell, for instance, presents her article, "The 1922 'Symphony of Sirens' in Baku, Azerbaijan," as a spatial reconstruction of the symphony. While this is useful, it also gives the false impression that these events actually occurred as reported in the instructions.

is, depending on which instructions we consider. This flexible use of space as raw materials — the at times conflicting interaction between the space of the instructions and the space of the city — is a constitutive feature of the symphony's ecstatic materialism. The resistance of Baku's spaces to this vision is the key theme of this part of the chapter.

Part two examines how the symphony uses rhythm, noise, and music to realize its ecstatic materialist vision — namely, to reconcile differences among Baku's diverse inhabitants (outlined in section one) by providing them with a unified proletarian identity. This occurs through its use of sound as a means of harnessing the "anarchic tendencies" of Baku's proletariat. Here three issues are of central importance. First, with regard to rhythm, Avraamov is committed to the idea that labor and rhythm are mutually conditioning principles in the formation of a community: the rhythmic exercise of one's body is the basis for labor just as the labor practices of an era are embodied in the rhythms of an era's music. In this regard, the symphony attempts to balance a radical reconstruction of the rhythms that guide everyday life in Baku with the need to make these rhythms appear as the natural outgrowths of industrial labor practices. Second, with regard to noise and music, Avraamov attempts to navigate the conflict between worker spontaneity — the "anarchic tendencies" of workers — and party consciousness. This manifests itself in the interaction between noise and melody, specifically the noises of machines and the performance of the "Internationale." I examine this interaction through an analysis of one of the symphony's main instruments, the steam-whistle machine, as an attempt to channel industrial sounds into a performance of the "Internationale." Lastly, contrary to its avant-garde futurity, the symphony's attempt to structure a community through rhythm, noise, and music in fact concerns problems regarding the social character of music that it inherits from the 19$^{th}$ century, particularly from the Russian Romantic tradition. In this regard, the conceptual roots of the symphony go back to two interrelated questions regarding the "aura" of music: to whom does music belong and where does

it inhere? These questions are further complicated by issues related to mechanical reproducibility — specifically, the advent of the phonograph. The symphony seeks to address these issues by creating a new kind of mass musical experience that may in principle inhere in — and therefore belong to — all people who participate in it. The sudden realization of this ecstatic conception of unity through Baku's spaces and sounds will be examined further in the sections below.

**Baku 1922**

> Only that communist is true
> who burns the bridges of retreat.
> Enough marching, futurists,
> leap into the future!
>
> Только тот коммунист истый
> кто мосты к отступлению сжег.
> Довольно шагать, футуристы,
> в будущее прыжок!
>
> — Vladimir Mayakovsky, "Order for the Army of Art" ["Приказ по армии исскуства"][22]

The above translation of Mayakovsky's poem (one of two main inspirations for the *Symphony of Sirens*) misses an important play on words between "communist" (kommun*ist*) and "true" (*ist*yiĭ) — namely the elision that would make the words together sound like "communists" (kommun*istyi*). In this sense, only that communist is true who not only burns bridges to the past and leaps into the future, but who does so as part of a greater whole. At the same time, the separation between the two terms poses a problem, a gulf that the communist must leap over in order to access the future. This gulf is that between himself and his fellow communists — between *kommunist* and *kommunistyi*. The implication of this construction is that the jumping of this gap — the elision between commun*ist* and commun*ists* via the word 'true' (*ist*yiĭ)—

22. *Маяковский В.В.* "Приказ по армии искусств." 6-9. Для голоса. 1923. С 32.

constitutes the communist's truth. This truth furthermore discards the "penny truisms" of the past, namely the idea that to be proletarian means to be a worker. In lines reminiscent of "150,000,000," Mayakovsky writes: "It's nothing to sweat in the factories, / to rub soot on one's face / and while taking a break / torpidly blink one's eyes / at another's luxury" ["Это что — корпеть на заводах, / перемазать рожу в копоть / и на роскошь чужую / в отдых / осовелыми глазками хлопать"].[23] In other words, the truth that binds the proletariat demands more of them than simply acquiring what they do not have; it demands that they reconstruct society according to that which makes them commun*ists* and futur*ists*. This truth is none other than their shared orientation toward the future. It is realized, as we saw above, through a burning and reshuffling of the spatial materials of the present ("the streets are our brushes / the squares are our palettes"). The difficulty is how to organize this reshuffling as a collective.

In the part of this chapter that follows, I begin by considering the ways in which the *Symphony of Sirens* attempted to make this leap — from communist to communists and from present to future — through a sonic re-arrangement of Baku's spaces. The first subsection examines the symphony's city specificity through a comparison of two versions of its instructions. Differences between the two suggest changes in the significance of specific sonic events, as well as differences between the intended audiences of the instructions. The second subsection considers the ethnic and religious makeup of Baku's districts and how the symphony utilized or failed to utilize them in the formation of a shared proletarian identity. While radically egalitarian in principle, I claim that the symphony ended up reproducing hierarchical relations that existed before the October Revolution. Lastly, the third subsection examines the symbolic value of Baku's spaces, particularly insofar as their relationship to one another served as a template for the Soviet Union as a whole. With this analysis I hope to unearth the ways in which

23. *Ibid*., 31-35.

Baku's spaces facilitated as well as resisted Avraamov's attempt to enact ecstatic materialist principles through the practices of everyday life.

**I**

Baku 1922 was not the first attempt to perform the *Symphony of Sirens*. A member of the Proletarian Culture Movement, *Proletkul't*, Avrramov first sought to realize the symphony in 1918 (the year Mayakovsky's poem was written) in the recently re-named city of Petrograd (St. Petersburg), followed by a technically flawed (by his own account) performance in Nizhny Novogorod (1919)[24] that employed a flotilla of small torpedo boats [Миноносецы].[25] Avraamov also attempted to repeat the success of the Baku performance in Moscow in 1923, though results were mixed due to the size of the city. The Bolshevik chronicler René Fueloep-Miller wrote that, in Moscow, distances between sirens were so great that "it proved impossible to attain a uniform, acoustic impression."[26] Likewise, though he initially thought the symphony a success, Avraamov later suggested in *Artist and Viewer* (1924) that "there was not enough sound for the Moscow 'auditorium'" ["…звука не хватило на 'аудиторию' Москвы"].[27] Avraamov attributed this lack

24. Nizhny Novgorod was also the site of the 1905 First Muslim Congress, which formed the Muslim Union, an anti-socialist organization that sought to unite Crimean and Volga Tatars and Azerbaijani Turks (Audrey Altstadt-Mirhadi, "Baku," 299). Rumiantsev notes, however, that there is no independent verification of the performance of the *Symphony of Sirens* in Nizhny Novgorod outside of Avraamov's own account (*Румянцев.* Арс Новый. 88).
25. *Авраамов А. М.* Художник и Зритель. С 50.
26. Rene Fuelop-Miller, *The Mind and Face of Bolshevism* (New York: Harper Torchbooks, 1962), 184
27. *Авраамов А. М.* Художник и Зритель. С 51. The seeming success concerned primarily a theme played on the steam-whistle machine. The theme, referred to by the 6th of solfeggio, *La*, stood for Revecca Zhiv, Avraaamov's lover at the time, as well as his then wife, Olga. The tone, according to Avraamov, was Olga's (the diminutive of Olga is Olya) while the composition of the theme was apparently and inside joke between Avraamov and Zhiv. In a letter to the Moscow factory committee requesting assistance with performance, he even goes so far as to refer to the spectacle as the symphony *La* ("симфония 'Ля'"), though no one other than Avraamov, Zhiv, and perhaps Olga could have been in on the joke. On 8 November 1923 Avraamov writes to Zhiv, "A success…a complete success! 'ReveccA' sounded over Moscow…Both of you stood with me on the platform…not my hands but yours and 'La's' raised the flag of the *Symphony of Sirens* high above the Kremlin — the guns saluted you" [Сбылось…все сбылось! 'ReveccA' отзвучила над Москвой…Вы обе стояли со мною там на высоте… не мои руки — твои и 'Ля' высоко подымали над Кремлем знамена 'Гудковой Симфонии' — вам салютовали орудия"]. This romantic musical conceit — the final chord of the Moscow performance — is striking, for it undermines the fundamental tenant of Proletkul't as culture for and by the masses. The presence of an inaccessible message in his

of sound to the placement of the steam-whistle machine in the courtyard of the Moscow hydro-electric power station (МОГЭС) instead of on the roof of the power plant as he requested. Indeed, he initially brought up this issue with his lover, Revecca Zhiv, to whom he also complained that the symphony suffered an imbalance of firepower: "…in all only twenty-seven canon shots! That's supposed to be a big drum! And there *weren't any* machine guns…only rifle salutes! At the same time, twenty airplanes were buzzing over Red Square as we were sounding off…" […всего 27 пушечных выстрелов! Это на большой-то барабан! А пулеметов *совсем не было*…только ружейные залпы! А над Красной площадью одновреммено с нами гудели 2 десятка аэропланов…"].[28] A successful performance thus required a delicate balance of volume and sound distribution. The point was not to deafen the city with noise but to orchestrate the latter in a meaningful constellation that the whole — or at least a significant portion — of the city would hear.

The multiple performances and the failure of most of them point to the city specificity of *Symphony of Sirens*. The symphony was most successful in Baku in part, as Wendell points out, on account of the city's topographical layout.[29] Gun shots and crowd choruses from the harbor area would have echoed against the surrounding hills, creating a more-or-less uniform acoustic impression throughout the city. Similarly, the wailing of sirens from the worker districts on the outskirts of the city would have rolled in toward the harbor area.[30] Moscow, on the other hand,

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symphony would have most likely gotten Avraamov into trouble with his colleagues who would have lobbied accusations of formalism. Significant portion of Avraamov's letters to Zhiv in the run up to the Moscow symphony are reproduced in *Румянцев.* Арс Новый. С 95-150.

28. Reproduced in *Румянцев*. Арс Новый. С 133.

29. D.D.B. Wendell, "The 1922 'Symphony of Sirens,'" 555.

30. Unfortunately, there is very little information available about the actual reception of the *Symphony of Sirens* in Baku. René Fueloep-Miller provides a short account in *The Mind and Face of Bolshevism* (182-184), though he was no actually present at the symphony. An excerpt from a 1923 account in the *Baku Worker* is re-published in *Румянцев*. Арс Новый. С 86. It mentions a number of events that are also present in the score along with speeches, implying that the symphony was in fact heard. At the same time, since the account is dated after the performance of the symphony, it could be that the author is relying on one of the already-published instructions. Rumiantsev claims that, regardless of what they heard, most of the city's inhabitants would not have realized that what they were

may have simply been too large and flat for the symphony to resound clearly, perhaps even under the ideal circumstances Avraamov had envisioned. Likewise, performances in different locations would have meant that the instructions for the symphony would have to be redesigned to take into account the particularities of each city. The Baku symphony, for instance, located the conductor's tower in the central square across from the harbor where the ships were parked; the Moscow symphony, on the other hand, placed Avraamov in the courtyard of the electric station on Rayushskaya naberzhnaya [Раушская набережная], across the Moscow river from the Kremlin. Both symphonies would then make use of the military and industrial facilities available to them, leading to different pacing and organization. There was thus no single *Symphony of Sirens*; rather, it was a concept that had to be rethought for the possibilities afforded by the urban contexts in which it appeared.

The *Symphony of Sirens* is, in this sense, city specific; it sought to realize itself through the physical, industrial, and symbolic potentials of Baku's geography, mobilizing strategic areas of the city's industrial, commercial, and working class districts in a radical reconstruction of public space. Differences between the Baku symphony's instructions, however, reveal the malleability of the cityscape as aesthetic raw material for the avant-garde. There is an irreconcilable ambiguity between the spaces of the instructions and those of the city, one that we should keep in mind when considering the significance of sonic events. Despite presentations to the contrary on the part of contemporary scholars, it is impossible to know exactly how the symphony proceeded.[31] In 1922, shortly before its performance, instructions to the symphony

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listening to was a symphony. The reason is that, without the instructions, most of the symphony's sonic events would have appeared in disparate contexts resembling those of a typical Bolshevik festival. However, Rumiantsev does not provide any first hand accounts to back up this claim.

31. Both D.D.B. Wendell and Adrian Curtin have presented the symphony's instructions as events that had occurred. Neither make note of an alternative score that deviates significantly from Mel Gordon's translation in *Wireless Imagination*: *Sound, Radio, and the Avante-Garde*, eds. Douglas Kahn and Gregory Whitehead (Cambridge: MIT Press, 1992), 245-252.

were simultaneously published in three different journals — the *Baku Worker* [Бакинский Рабочий], *Work* [Труда], and *Communist* [Коммуниста], the latter in Turkish.[32] The score was then republished in 1923 in issue No. 9 of the *Proletkul't* journal, *Gorn* [Горн], in part as a way of promoting the symphony in Moscow.

Of these four versions, the *Gorn* publication provides the greatest detail and is the most readily accessible. In it Avraamov remarks, for instance, that all performers were required to have the symphony's instructions ["Наказ"] on their person during the performance, hence we know these instructions were to function as a score.[33] It also provides details regarding the symphony's instrumentation, including an account of the harmonic, rhythmic, and signaling roles of its various instruments — steam-whistle machine [магистраль], individual horns [индивидуальные гудки], sirens [сирены], auto-transport [автотранспорт], bells [колокола], airplanes [аэро], artillery [артиллерия], and conductor's tower [вышка] — as well as a simplified rhythmic notation of the "Internationale," thus making it easy for singing crowds of non-musicians to follow along.[34] While the *Gorn* account provides a lot of detail it is at the same time frustratingly vague. Certain instructions could only have been understood by someone acutely familiar with the exact locations and capabilities of the industrial and military instruments at the symphony's disposal. It is also clear that a significant amount of planning would have had to have occurred ahead of time though there is scant evidence of any "rehearsals."[35] To make matters worse, while Avraamov claims that the instructions in *Gorn* are a reproduction of those found in the *Baku Worker,* the two documents in fact diverge significantly,

32. Whether other performances of the symphony were published as instructions has not been established.
33. *Авраамов А. М.* Симфония гудков. Горн. С 116.
34. *Ibid*., 110-114.
35. From the *Gorn* instructions we know only that the chairman of the central organizing committee [Председатель ЦОК] was Pyotr Ivanovich Chagin, editor of the *Baku Worker* and assistant secretary of the Central Committee in Azerbaijan. Rumiantsev mentions the existence of a possible rehearsal in his monograph but this could not be independently verified (*Румянцев*. Арс Новый. С 89).

thus leading to questions regarding the extent to which they were actually followed. This fact has thus far been ignored in the English literature, which treats the symphony's sonic events as having occurred unproblematically. In fact, in accordance with the idea of treating spaces as aesthetic materials, the significance of sonic events changes depending on their timing and placement in each score. These discrepancies, in turn, reflect differences between the intended audience of the instructions.

The two scores open the same way, with instructions for the assembly of the symphony's various industrial "instruments" and musicians. These are given in a military style — recalling literal "orders" for the Army of Art — and reflect a keen understanding of Baku's spatial layout and acoustic possibilities. The Caspian fleet, including the steam-whistle machine, parked aboard a torpedo boat, "The Worthy" [Миноносец "Достойный"], assemble at 7:00 AM near the railroad depot, the terminating point of the Transcaucasian railway. At 8:30 cadets from the "Fourth Armavir" division ["4 Армавирских"], musicians, and conservatory students arrive at the pier — some of them board the ships.[36] By 9:00 the ships are in place; at 10:30 'signalers' take their positions at "regional, dock, and railroad sirens" ["районные, доковые, и вокзальные гудки"] near Avraamov's conductor's tower — a Swedish mast located in the square across from the harbor. These would have perhaps been used to signal sirens further out in the city, though such use is not readily apparent from the text.

After initial preparations, the symphony finally gets underway around noon, with the sounding of sirens from the factory and oil districts of Bibi-Eibat [Биби-Эйбат], Bailov [Баилов], Black Town [Черный Город], White Town [Белый Город], and Zykh [Зых]. These districts were located along the southern coast of the peninsula and formed a half-circle around

36. Again, the wording here is vague. Students would have had to have known where to go ahead of time. Rumiantsev, on the other hand, claims that conservatory students did not participate at all, though the basis for his claim is unclear. See *Румянцев*. Арс Новый. С 86-92.

the city center and harbor areas.[37] Bibi-Eibat lay at southwestern most tip (below the harbor) and Zykh at the southeastern most edge. The rest of the districts — arranged here from west to east — fell in between these two points. Lastly, clustered near the center were the sirens of the commercial districts — the Azerbaijan Oil trade offices [Азнефт] and the railroad station; further north lay the Armenian Village (Armenikend) and other spaces which Avraamov collectively refers to as the "mountain region" ["горрайон"].[38] Many of these districts were too far away from Avraamov's location to see him. He signaled them, instead, with a series of canon shots that beat like a drum. Guns and machines closer to him he signaled (according to the *Gorn* instructions) with semaphores, a field telephone, and a megaphone.[39]

With the sounding of sirens from Zykh to Bibi-Eibat, the two scores begin to diverge. The *Gorn* instructions start off with a bang. All the sirens of Zykh, White Town, Bibi-Eibat, and Bailov sound off at once.[40] The *Baku Worker*, on the other hand, starts with the fifth canon shot signaling the Azneft trade offices. The *Gorn* score proceeds mainly by canon shots, each signaling another district's sirens or sonic event (e.g. the taking off of hydroplanes): the fifth canon shot signals the sirens of Black Town; the tenth signals the Azneft trade offices, etc. The *Baku Worker*, on the other hand, relies primarily on semaphore signals to build tension: "Red on white background flag (A) — rifle salvos; yellow with a blue rhombus (4) — machine guns;…" etc. [Красный с белым полем флаг (A) — ружейным залпам; синий с желтым ромбом (4) —

37. Spatial reconstructions of the instructions are based on maps found in Ronald Grigor Suny, *The Baku Commune,* 396; Audrey Altstadt-Mirhadi, "Baku," 282; and D.D.B Wendell, "The 1922 'Symphony of Sirens,'" 552. Wendell's map is by far the most detailed but due to printer's errors it is almost impossible to read.
38. *Авраамов А. М.* Симфония гудков. Горн. С 115.
39. *Ibid.*, 112-113.
40. Gordon mistakenly translates this event as follows: "The fireworks volley will signal Zykh, Bely Gorod, Bibi [sic], Abot [sic], and Baylon to head off towar the road roaring" (Gordon, 250). This implies the presence of fireworks and moving automobiles. Avraamov's *Gorn* score mentions neither, though it does mention a road from which artillery shots are fired: "On the first artillery volley from the road enter the sirens of Zykh, White Town, Bibi-Eibat, and Bailov with a terrifying roar" ["По первому салютному заплу с рейда вступают с тревожными гудками Зых, Белый Город, Биби-Эйбат и Баилов"] (*Авраамов А. М.* Симфония гудков. Горн. 115).

пулеметам;…].[41] The *Gorn* score deploys a similar set of semaphores toward the end as part of a grand finale.

The significance of these events changes in terms of their relation to the symphony's climax — an abrupt pause in the middle of the spectacle, marked by the twenty-fifth canon shot (in both scores). This pause is followed by a "triple chord of sirens" and a performance of the "Internationale" (most likely on the steam-whistle machine). Avraamov composed the symphony according to two main principles. The first was that the symphony should sonically embody the events of the October Revolution; the second was that it connect disparate areas of the city through a kind of "call-and-response,"[42] to use Wendell's phrase, between the city-center and the factory districts. With regard to former, Avraamov writes in *Gorn* that the "Baku symphony was a sound painting of alarm, continuous battle, and the victory of the "Internationale" army" ["…Бакинская симфония была звуковой картиной тревоги, расворачивающегося боя и победы Интернационала"].[43] In this regard, the pause is the moment when alarm and battle — chaos and anarchy — gives way to the "Internationale;" it marks the conversion of war energies into cheer, melody, and — most importantly — unity. This aural shift is marked by a spatial one as well. After the pause, as Wendell notes, the locus of sound moves from the periphery to the city center. Cadets and infantry are instructed to march back and forth from the square to the docks (*Gorn*, *Baku Worker*). They are soon joined by a "chorus" of automobiles (*Gorn*, *Baku Worker*; most likely car horns). The sounds of crowds cheering and singing the "Internationale" and the "Marseillaise," accompanied by a brass band, emanates from the city center, followed by a grand finale of "all steam whistles and sirens lasting three minutes accompanied by the ringing

41. *Авраамов А. М.* Симфония гудков. Бакинский рабочий. 1922. Republished in *Румянцев.* Арс Новый. С 81.
42. D.D.B. Wendell, "The 1922 'Symphony of Sirens,'" 555.
43. *Авраамов А. М.* Симфония гудков. Горн. С 116.

of a bell" ["всех гудков и сирен втечение 3-х минут, сопровождаемый колокольным звоном"] (*Gorn, Baku Worker*).[44]

Placement of noises around the pause determines their significance as noises of fear and anxiety or those of celebration. In this respect, our understanding of these noises is highly ambiguous. The most striking example of this fact is the section of noises conducted via semaphore directly from Avraamov's tower. In the *Gorn* score, this occurs at very end of the symphony, after a ceremonial march. In the sense, it is an epilogue, a moment of celebration similar to a prolonged fireworks volley. In the *Baku Worker*, this section — composed with slightly different "instrumentation" — occurs as part of the build up to the pause. In other words, it is intended to build fear and anxiety before the cathartic release of the "Internationale" rather than celebrate it. Indeed, with the addition of the semaphore section, the celebratory period of the *Gorn* score becomes a good deal longer than in the *Baku Worker*, while the period of alarm and anxiety shortens. Moreover, the overarching tenor of the celebration changes. In the *Baku Worker*, the celebration is more reserved and solemn. "During the playing of the 'Internationale' regional factory horns, train station, railroad depot and steam engines are silent" ["Во все время исполнения "Интернационала" районные заводские гудки, вокзал (депо и паровозы) молчат"]. Here, the directed melody of the Internationale Army — a representation of the Bolshevik party line — and the spontaneous energy of Baku's workers are kept strictly separate. The former sounds while the latter remain silent — a unidirectional form of acknowledgment. Such explicit instruction for silence in the presence of the "Internationale" are not given in *Gorn*. Instead, it places greater emphasis on the bidirectional communication of the centrally located "Internationale" and the peripheral sirens.

44. *Авраамов А. М.* Симфония гудков. Горн. С 116 / *Авраамов А. М.* Симфония гудков. Бакинский рабочий. Republished in *Румянцев.* Арс Новый. С 81.

This difference in aural dynamics mirrors one between the spatial dynamics of the two instructions as well. Whereas, in general, both instructions demonstrate a movement from the periphery to the center after the pause, this movement is more pronounced in the *Gorn* instruction. The use of semaphore signals to build tension in the *Baku Worker* before the pause would have generated a lot of noise from the center of the city, since only those machines and weapons immediately in the vicinity of Avraamov's Tower could have generated this noise. The less prominent surrounding sirens would have been difficult to hear for participants in the city center. On the other hand, the comparative lack of noises from the center in the second half of the *Baku Worker* instructions would have meant that the majority of sounds came from crowds, the brass band, and "Internationale" (though there was still the noise of the "automobile chorus"). In the *Gorn* instructions, the situation is reversed. Greater emphasis is placed on the periphery in the first half, while the centrally-located semaphore section is reserved for the end. In this regard, the *Gorn* instructions have a clearer — and louder — construction.

This louder construction would have been useful for communicating the magnitude of the *Baku Symphony* to a Moscow audience. Indeed, this factor should not be all-too-easily ignored. The *Baku Worker* instructions, published in Russian and Turkish, were intended for performers, participants, and inhabitants in Baku just before the performance of the symphony. The performance most likely resembled other mass spectacles, such as those that accompanied the 1920 Baku Congress,[45] with which the city's inhabitants were already familiar. These spectacles included marching, singing, displays of military prowess, and good deal of solemn speech making — a feature that, according to an account published one year later in the *Baku Worker,*

45. See section III below.

was also part of the symphony.[46] The symphony would have appeared as woven into the context of a mass celebration — one whose frequent starts and stops would not have necessarily been heard as a single massive work. The *Gorn* instruction, on the other hand, were intended for a Moscow audience, particularly those affiliated with the Proletarian Culture Movement (Proletkul't) which sponsored Avraamov's events. Just ahead of the Moscow symphony, it would have been in Avraamov's interest to inflate somewhat the events in Baku, especially in order to obtain more support for the 1923 Moscow symphony. This he does by emphasizing their cohesion and volume. According to the *Gorn* score, the events did not just sound for different parts of the city a different times; they sounded for the entire city as part of a single military-musical exercise.

That said, both accounts of events in Baku are in keeping with poetics of ecstatic materialism as a re-imagination of spatial relations. Their use of streets and squares as brushes and palettes, however, takes place somewhere in between imagined and physical space. As the sonic embodiment of the October Revolution, the significance of the sounds these spaces made changes depending on their placement. This, in turn, alters how the Revolution would have sounded for participants in Baku as well as for those reading the events in Moscow. The sound of the October Revolution was supposed to function as the truth that linked the identities of Baku's diverse proletariat as commun*ists* and futur*ists*. It was a sound, furthermore, that would link them to Moscow's proletariat. Two presentations of a single symphony, however, made this truth sound different depending on its use of the cityscape as well as on its intended audience. In other words, while the symphony made specific use of the sonic possibilities Baku afforded, it had difficult sounding the Revolution for everyone. This question of how this Revolution may have

46. *Румянцев*. Арс Новый. С 86. One can easily imagine speeches taking place, for instance, during the pause after the 25th Canon.

sounded is further explored in the next section in terms of ethnic and religious differences in Baku's spatial make up.

**II**

Earlier (Section I) I suggested that the *Symphony of Sirens* was composed according to two principles: the first was as a re-sounding of the October Revolution; the second was as a call-and-response between Baku's various districts. While the significance of the former changes with regard to the placement of certain sounds, the latter principle remains more or less constant in both the *Baku Worker* and *Gorn* instructions. It was by means of this principle that the symphony sought to foster a unified proletarian identity. From 08:30 until around the middle of the afternoon, the symphony connected spatially disparate points in the city — the central square, the Transcaucasian Railroad Depot, the shipping docks, the peripheral industrial and oil districts, etc. Canon shots from the central harbor signaled sirens in peripheral oil producing regions (Zykh, Black Town, White Town, etc.); the latter in turn triggered sounds in the central square including an automobile chorus, crowds singing the "Internationale," and a tremendous brass orchestra. This "call-and-response" staged a sonic, spatial, and temporal shift in the city, transforming it from a bustling, chaotic, and ethnically divided regional hub to a synchronized, interconnected, and seemingly egalitarian proletarian metropolis. In generating these noises, the symphony took advantage of the symbolic potential of Baku's heterogeneous districts and ethnicities, as well its global position in the Middle East. At the same time, in sounding its proletarian identity through factory noise, it ended up reproducing some of the same divisions among Baku's proletariat that existed before the October Revolution. In doing so, its ecstatic materialist vision departed somewhat from Mayakovsky's in "Order for the Army of Art."

The sudden realization of an inter-ethnic communist utopia through a re-organization of space is one of the most important aspects of the *Symphony of Sirens's* ecstatic materialism. Its salient feature is a local specificity that implies the global. In this regard, the symphony took advantage of Baku's historical, symbolic, and geopolitical significance as a cosmopolitan oil-producing port on the Caspian Sea. This significance was coded into the urban spaces and temporalities of everyday life. Like many cities in the region, Baku was a city of districts. These reflected the city's heritage as a small town of around 5,000 Turkic and Persian Muslims in the Safavid Persian Empire, its breakneck industrial expansion during the oil boom of the late 19th century, its history of colonial administration and ethnic conflict, as well as its economic and political potential for an inter-ethnic classless society.[47]

The discovery of oil in the 1870s contributed to the alteration of Baku's cityscape more than any other factor. Over the course of the second half of the 19th century, Baku's population exploded as Russians, Armenians, Azerbaijani and Iranian Turks flooded the city in search of work at Nobel and Rothschild refineries. At their peak in 1901, these produced "55 percent of all oil exported from the [Russian] empire."[48] As the number of barrels grew, so did the population, from 13,000 in 1860 to nearly 112,000 in 1897 to nearly 215,000 in 1913 — a rate of growth faster than London, Paris, and New York during similar periods. This new population worked and lived in ethnically homogeneous districts, arranged in three concentric circles of population.[49] The centrally located business districts (Maritime, Old Town, and Railroad Station) contained the city's largely Russian educated elite and skilled workers. These commercial areas were generally more integrated than others, especially compared to the southwest administrative and military districts near Bailov. The eastern industrial and oil districts (Black Town, White

47. Audrey Altstadt-Mirhadi, "Baku," 286
48. *Ibid*., 287
49. R.G. Suny, *The Baku Commune*, 7.

Town, and Zykh) were populated largely by Russian workers; the western industrial and worker districts (Baladzhary and Khoja Hasan) were primarily Muslim, while the area immediately to the north of the business districts (Armenikend)[50] housed Armenian businesses and oil workers. Lastly, encompassing these in a broader ring around the harbor were the predominately peasant Muslim villages and distant oil fields, including (from east to west) Surakhany, Sabunchiny, Zabrat, Gezdek, and Bibi-Eibat.

To orchestrate a performance of unity through the audial interaction of these districts was in many respects to present a vision of Baku's future through a reconstruction of its past. The *Symphony of Sirens* sought to overcome historic tensions within a labor movement beset by divisions among Baku's major ethnic groups through a re-sounding of the proletarian struggle. As Audrey Altstadt notes, in Baku prior to the Russian Revolution, "the major obstacle to enduring proletarian solidarity was tension between Muslims and Christians," a tension that was instrumentally exacerbated by a Russian colonial administration all too willing to exploit differences among these groups respective labor positions— e.g. the fact that Muslims "constituted the bulk of…poorly paid unskilled workers, while Christians generally filled the skilled, technical, white collar, and managerial posts."[51] Furthermore, the ideology and aims of the predominantly Russian, Georgian and Armenian labor movements — movements that spanned the ideological spectrum from Social Democrat to Bolshevik — differed significantly from their Muslim counterparts whose "religious" demands, such as "prayer time without loss of pay, separate water carriers and bakers…, and the building of a mosque in the oil districts," did not harmonize with the former's anti-religious and transnational conception of Marxism. Though genuine solidarity between Muslim and Christian labor groups did occur — e.g. the 1904

50. Armenian Village. This area was partially located in the business district and stretched north to include more residential areas.
51. Audrey Altstadt-Mirhadi, "Baku," 309-310.

founding of the Muslim Social Democratic party, Hümmät[52] — these difficulties nevertheless continued to manifest themselves up through the October Revolution, the formation and dissolution of the Baku Commune, and the Soviet administration of the city.

As a historical subject embedded in the colonial landscape of the Russian empire and the Soviet Union, Avraamov's attempts to address these problems sonically and spatially largely conformed to the idea that they were part of a greater class conflict. The industrial and military sounds of this seemingly greater proletarian struggle often drowned out those of equally important struggles within it. As Wendell notes, the symphony's organization according to canon signals and siren responses was meant to acknowledge the "various districts within the city limits." This suggests, for her, "that a non-hierarchical equivalence was imposed on spaces that were valued differently by cultural groups in the city."[53] Wendell goes on to point out that this non-hierarchical imposition ignored the real differences of the Azerbaijani populace. Such a conception, however, simplifies the symphony's "non-hierarchical imposition" to a kind of *carte-blanche* radical egalitarianism while at the same time ignoring how the symphony reproduced a preexisting hierarchy.

In fact, the symphony was highly aware of the symbolic potential of Baku's spaces, though it was technically and geographically limited to the industrialized eastern part of the city. This area contained the majority of sound producing districts including Black Town, White Town, and Zykh. Other areas that produced a significant portion of sound included the Azerbaijan Oil Trade Offices, Docks, and Railroad Station (located near the harbor), Armenikend and other "mountain regions" (north of the city-center), and Bibi-Eibat (south of the harbor). Of these, only Bibi-Eibat was predominately Turkic-Muslim, while Armenikend was largely

52. *Ibid.*, 298.
53. D.D.B. Wendell, "The 1922 'Symphony of Sirens,'" 555.

Armenian. This is not to say that Avraamov's symphony favored the Russian population outright, but that it favored the industrial centers that Russia's occupation of Azerbaijan (along with industrial capitalist development) had built. Muslim neighborhoods, such as Baladzhary and Khoja Hasan (west of the center), were comparatively silent. Depending on which instructions one looks at, they may have sounded on the fifteenth or eighteenth canon (signaling the "mountain district"), though Armenikend is probably the district intended here.

Avraamov's use of sound and space indicate an awareness and concern for issues related to ethnicity. The symphony's instructions were, after all, published in Turkish. Moreover, we do not know with certainty who was working and operating these districts during the course of the symphony. As mentioned earlier, the inner city districts were relatively integrated. Moreover, just because Azerbaijani workers lived in the western portion of the city does not mean that they could not have worked in the east or been there during the symphony. Nevertheless, it appears that the symphony was geographically limited to areas where industrial sound could be readily produced — areas that also tended to be ethnically Russian. As such, the project of the city symphony, as an attempt to organize the sounds of modernity, implies, in this case, the loss of history because pre-modern sounds could not compete (in terms of volume) with the kinds of instruments that the modern score uses. This is the case for all city symphonies that equate the sounds of industry with the sounds of modernity.

Another reason for the *Symphony of Sirens'* geographic limitation could be its sonic reach. Though it included significant portions of the city, it could not possibly hope to extend across the entire Baku peninsula. The relegation of Azerbaijani workers to areas further to the north and west meant that it would be difficult to include their spaces in a symphony whose sound, though expansive, could only reach those areas nearer to the coast and immediate foothills. In this sense, the symphony was sonically limited to a certain area that, though it

included Azerbaijani workers, did not include many of their spaces. This fact, in turn, reproduced relationships of hierarchy that pre-existed the symphony, not to mention the formation of a Soviet State. Now in accordance with a Bolshevik narrative, Baku remained a tacitly colonized space on the periphery. The identity of its inhabitants as workers, regardless of ethnicity, was nevertheless performed through the spaces that the previous hierarchy of oppression had built.

Equally important was the fact that the orchestration of the city's sound was directed by canon fire from the Caspian fleet — that is, a formerly Russian fleet now under Bolshevik control. The symbolism of this fact would not have escaped the city's Azerbaijani population. Though it was intended to symbolize the victory of the Internationale Army over the interrelated forces of colonization and capitalist exploitation, it must have just as readily appeared as another colonizing force, particularly to those segments of the Azerbaijani population that were not immediately aligned with the Bolshevik cause. The "call-and-response" between districts on the periphery and those in the harbor would thus have been conditioned by a previous acceptance of the Bolshevik narrative. In other words, the symphony did not exist to convince those that were not convinced, but to stoke the enthusiasm of those elements of the population — Russian, Armenian, or Turkish — who already believed in the Bolshevik cause.

The symphony's attempt to realize a vision of unity through the materials of the present was complicated, in the above respects, by pre-existing divisions in society for which it failed to adequately account. While Avraamov was aware of these divisions, his attempt to overcome them through a voicing of Baku's shared proletarian identity ended up reproducing some the same hierarchies it was intended to abolish. To a certain extent, this fact is the result of a departure from the conception of ecstatic materialism in Mayakovsky's poem. For Mayakovsky, to be a proletariat was not, first and foremost, to work in a factory, but rather to be oriented toward the future — to be ready to use spaces as materials for a construction of the radically

new. For Avraamov, on the other hand, to be a proletariat meant, first and foremost, to work in a factory. The sounds made in the factory had their own revolutionary potential that could be channeled into a musical work. The linking of these sounds, in turn, was used in a radical re-conception of space and time — a redrawing of the map of Baku. The symphony's attempt to perform unity through Baku's spaces was thus predicated on a specific understanding of what it meant *to be* a proletariat — it meant working in certain industrial spaces and making industrial sounds. As such, the symphony had lost some of the radical openness of Mayakovsky's poem. At the same time, as I hope to show in the next section, such a radical openness toward the future is in fact haunted by the difficulty of assimilating the significance of Baku's past.

**III**

The *Symphony of Sirens'* re-conception of space was part of an attempt to address difficult questions regarding the relationship between the Bolshevik's struggle against capitalism and the struggle of Middle Eastern colonized peoples against imperialism. The play of inter-ethnic spaces in Baku mirrors its importance in this global context. Following Wendell, I suggest that the symphony's performance of unity reflects many of the concerns and tactics of the First Congress of the People's of the East, held in Baku from Sept. 1st - 8th, 1920. More than just a meeting of delegations from across the Middle East, the congress combined solemn speeches, agitprop trains, negotiations and conferences, street parades, volunteer activities, and other types of pageantry to send a message of international solidarity. In a word, the Congress was itself a mass spectacle: Fanfares of the "Internationale" played after dramatic pauses in almost every speech; effigies of Lloyd George and Woodrow Wilson were burned in the streets; people dressed in traditional garb and brandishing exotic weapons made overt displays of camaraderie.

In this regard, its performance of unity was also troubled by some of the same difficulties as the *Symphony of Sirens*.

In the West, the Congress was received with much skepticism. H.G. Wells, reporting from Russia, described it as a "quite wonderful accumulation of white, black, brown, and yellow people, Asiatic costumes and astonishing weapons."[54] This overt display of unity struck a false note with Wells: "It was an excursion, a pageant, a Beano. As a meeting of Asiatic proletarians it was preposterous."[55] Wells's trivializing account of the Congress misses many of the difficult issues that it sought to resolve including colonialism, women's rights, agricultural questions, and Zionism. In this regard, Stephen White notes, "[t]he Baku Congress symbolized the formal espousal by the Bolshevik leadership of the cause of the oppressed and colonial peoples; but it represented a no less striking introduction to the complexities and ambiguities of such a position, with which the Comintern would attempt to come to terms in the following years."[56] One of these ambiguities was the possible basis for cooperation between the proletariat of a colonizing power and the workers and peasants of a colonized people.

A number of major revolutionaries and politburo officials spoke to this issue including Grigoriy Zinoviev (1883-1936), Karl Radek (1885-1939), and Nariman Narimanov (1870-1925), the First Secretary of the Azerbaijan Communist Party (1920). A writer who translated Nikolai Gogol's *The Government Inspector* into Turkish, Narimanov framed the issue as a reconciliation between colonizers and colonized, one that was facilitated by the fact that the representatives of the colonizing powers were of a different class: "It seems to me that two worlds are meeting here today: the world of the oppressed and the world of the oppressors. We can be sure that if the representatives of the world of the oppressors were delegates of the bourgeois class, the tears of

54. H.G. Wells, *Russia in the Shadows* (London, 1920). Quoted in Stephen White, "Communism and the East: The Baku Congress, 1920," in *Slavic Review* 33, 3 (Sep., 1974), 492.
55. *Ibid.*
56. *Ibid.*, 493.

the gray-haired East would have perhaps no influence at all. But it is our good fortune that the delegates who are here represent the working class of the bourgeois countries."[57] This remark, given during the first session (Sept. 1, 1920), sounds a note of rapprochement. The communist representatives of bourgeois countries were there to listen as the "gray-haired East" told "of her sorrow, of the grievous wounds inflicted upon her by the capital of the bourgeois countries."[58] The basis for cooperation is the fact that the proletariat of colonizing bourgeois powers hold a subaltern position within their society. This position fosters an alliance between them and colonized peoples, particularly insofar as it makes them receptive to listening to the latter's struggles under colonial rule.[59] In other words, for Narimanov, the basis for cooperation was as much about coming to terms with the colonial past as it was about moving forward. Such an idea challenges the poetics of ecstatic materialism insofar as it holds that the shared truth of communists is not just their shared orientation toward the future, but also their mutual understanding (and reconciliation of) the past.

The previous day's remarks from Radek and Zinoviev, on the other hand, did not take up this call to listen to the sufferings of the East. The products of capitalist exploitation, these sufferings were not different in kind from those of the proletariat in industrialized countries and colonial powers. As such, they were not the basis for an examination of the past, but for an international expansion of the Socialist movement. In this regard, Radek, then secretary of the Third Communist International and organizer of the German Communist Party (KPD), wrote:

> It was no accident that in planning the Congress of the Peoples of the East we chose the city of Baku. Here, in Baku, where Persians, Turks, and Tartars have worked for many

57. Nariman Narimanov. "Tasks of the Congress of the Peoples of the East," in *To See the Dawn*: *Baku, 1920–First Congress of the Peoples of the East*, ed. John Riddell (New York: Pathfinder, 1993), 61.
58. *Ibid.*, 60.
59. For a detailed study of this dynamic see: Benjamin Loring, "Colonizers with Party Cards: Soviet Internal Colonialism in Central Asia, 1917-1939," in *Kritika: Explorations in Russian and Eurasian History* 15,1 (2014): 77-102.

> years, here in Baku where capitalism bullied and exploited these workers, socialist ideas came to them at the same time and found a common response in their hearts.
>
> We know how the socialist revolution was born here in Baku. The idea of struggle against Russian tsarism spread outward from here.…From here will flow an electric current of political awareness. Here will be planted the banner of struggle for the liberation of the East that the Communist International has entrusted to the Baku proletariat, an experienced fighter for the liberation of the working people.[60]

There is a certain rhetorical sleight of hand in Radek's comments. On the one hand, he suggests that the socialist revolution has its own roots in Baku, independent of the West. Its struggle against tsarism has its own history, as does its legacy of inter-ethnic cooperation. This legacy will extend out from Baku to encompass the eastern world. In this sense, it is almost as if Russia did not have a hand in Baku's revolution but was rather one of the lands to which it spread. On the other hand, the language of colonization is also present in these comments, particularly in the idea that "here will be planted the banner for the liberation of the East…," as well as in the idea that Baku was "chosen." Such ideas connote that Baku is part of a larger "civilizing" project, albeit one that aims at the liberation of all peoples. The ability of the Russian delegation to maintain this position is based on the idea that they were representatives not of a colonizing power, but of an international movement in which all members were ostensibly equal. Their subaltern position did not, first and foremost, make them better listeners; rather, it expunged their past as representatives of colonizing countries. The Russian delegation thus opened up the possibility of reproducing colonial relationships due to their failure to acknowledge their own involvement in colonial history. This parallels the *Symphony of Siren*'s own reproduction of the industrial hierarchies in Baku.

The rhetoric that characterized Radek's remarks is even more explicit in Zinoviev's comments. For the latter, the spread of Soviet socialism eastward was not about bridging the

60. Karl Radek, "Opening Rally: Joint celebration of the Baku soviet and the Azerbaijan trade union congress," in *To See the Dawn*: *Baku, 1920–First Congress of the Peoples of the East*, ed. John Riddell (New York: Pathfinder, 1993), 53-54.

divide between two equal groups of workers. Rather, he framed the spatial relationship between East and West in terms of the relationship between peasant and proletariat:

> To your city has fallen the great honor of serving as the gate through which the Western proletariat is passing in order to extend its hand to the peasantry of the East. Your city is now the scene of new events, previously unknown in the history of mankind.
>
> …the Second Congress of the Communist International made no mistake when it fixed this congress to be held in Baku. Its voice will be heard in London, in Paris, in Constantinople, and in New York.[61]

These comments present Baku as, in the words of Tadeusz Swietochowski, "the window for the revolution in the Muslim East."[62] At the same time, the proletarian-peasant dynamic here is one that closely mirrors the "civilizing" rhetoric of imperialism. At this point in history, the Bolsheviks viewed the peasantry as a reactionary force that, with the right guidance, could have revolutionary potential. The comments reframe the same narrative in spatial terms: they extend the hand of cooperation from West to East from a superior position — that is, from proletariat to peasant. Similar to Radek's remarks, they also present Baku as the agent in this dynamic. It is the events in Baku, along with the city's unique geography, that will make its voice heard around the world. Baku is, in this sense, a megaphone, though whether it projects its own voice is unclear.

From the Russian perspective, the potentials latent in Baku's geographical position made it the site of a radically transformed society. In terms of the poetics of ecstatic materialism, the arrangement of colonized peoples and spaces to form an egalitarian space was enough to realize that space in the present. Indeed, the spectacle of the Baku Congress attempted to enact precisely such a spatial dynamic not just in Baku, but across the soon-to-be Soviet Union. "The Congress," Wendell notes,

> was an occasion for the Committee leaders in Moscow and Petrograd to travel via 'agit-trains' through the southern frontiers and Caucasus, stopping in rural areas along the way. Attendees also travelled via the Volga River and across the Caspian Sea in 'agit-ships.'

61. Grigory Zinoviev. *Ibid.*, 50-51. Quoted in D.D.B. Wendell, "The 1922 'Symphony of Sirens,'" 556-7.
62. Tadeusz Swietochowski. *Russia and Azerbaijan: A Borderland in Transition,* 105.

> Both modes of transport…formed a highly visible demonstration of socialism's expansion across Russian territory.[63]

This spatial expansion presented a unified and celebratory atmosphere. More than just vehicles of transportation, agit-trains and ships brought new entertainments to the countryside, particularly the cinema. Inside these trains, peasants and formerly colonized peoples could get their first glimpse of the metropole, connecting them, for the first time, to proletarians in the city. At the same time, this orientation toward an interconnected future covered up rather than acknowledged the difficulties of the past. In accordance with Zinoviev's and Radek's statements, the subaltern position of workers everywhere was enough to forge bonds between colonizer and colonized in the construction of a new future. This idea largely overlooked Narimanov's injunction to listen in the interest of making something new.

As a performance of unity, the *Symphony of Sirens* falls into similar difficulties on account of its one-sided orientation toward the future. Rather than listen to the sounds of the oppressed, it composes a new kind of noise. Its radical re-conception of space acknowledges the struggle of Baku's workers only insofar as they are part of the larger proletarian narrative of the October Revolution. One can imagine a different symphony — one that actually sought to incorporate the sounds of Baku's diverse inhabitants.[64] Such a symphony, however, would not be in full accordance with the poetics of ecstatic materialism insofar as it re-voiced the past instead of sounding the new. Rather, in composing the symphony, Avraamov understood cultural identity as an ornament of class identity, a secondary characteristic, like the clothing and exciting weapons at the Congress of the People's of the East. Class identity, on the other hand, was

63. D.D.B. Wendell, "The 1922 'Symphony of Sirens,'" 559.
64. Indeed, in 1939 radio broadcast, Avraamov hinted at such a performance, stating that their had been attempts to play a Turkish march, "Kemal Pasha" ["Кемаль-паша"] on the Steam-Whistle Machine (Румянцев. Арс Новый. С 89).

something that all cultural identities shared. This identity was manifested through the sounds of industry. It was a call to the future; this made it all the more easy to ignore the voices of the past.

**Rhythm, Noise, Music**

Part one of this chapter examined how the *Symphony of Sirens* utilized Baku's spatial layout to manifest its vision of inter-ethnic proletarian solidarity. In this regard, the symphony took advantage of Baku's physical and symbolic significance to sound its conception of the future. This radical break from the past, in accordance with the poetics of ecstatic materialism, was realized through the materials of everyday space. Differences between instructions to the symphony revealed changes in the significance of specific sounds as well as possible differences between the symphony's Baku and Moscow reception. Likewise, the symphony's spatial relationships posited proletarian unity in a space characterized by cultural and religious difference. These differences reflected Baku's role in international geopolitics. In part two, I examine how the symphony sought to utilize sound as a way of fostering a unified proletarian identity. This occurred in three ways, each discussed in turn in the sub-sections that follow: first, through Avraamov's conception of musical 'rhythm' as the embodiment of a culture's labor practices; second through the interaction between so-called 'noise' as the manifestation of society's "anarchistic tendencies" and music (specifically, the "Internationale") as the embodiment of the Party line; third, as a way of addressing issues regarding the social character of music that Avraamov took over from the Russian romantic tradition. These issues, I argue, concern two interrelated questions that were complicated by the advent of mechanical reproducibility — namely, to whom does music belong and where does it inhere? The symphony sought to answer both questions through a mass musical experience that could in principle inhere — and therefore belong — to all who participated in it.

**I**

In the introduction to the *Gorn* instructions, Avraamov writes "[o]f all the arts music has the greatest power of social organization" ["Из всех искусств музыка обладает максимальною социально организующей мощью"].[65] Avraamov then traces a brief mythical history of the social power of music from the legend of Orpheus to Pythagoras:

> With music Orpheus tamed wild beasts.
> With trumpets Joshua smashed Jericho's stronghold.
> With the sound of his lyre Amphion built great cathedrals in cliffs: to the sound his music these stone colossuses came together of their own accord.
> Pythagoras heard the 'harmony of the spheres' in the very mechanism of the cosmos, moved by heavenly bodies.
>
> Орфей музыкою укрощает диких зверей.
> Иисус Навин трубами сокрушает Иерихонские твердыни.
> Амфион звуками лиры воздвигает из скал величественные храмы: сами собою складываются каменные колоссы под его музыку.
> Пифагор слышит 'гармонию сфер' в самой космической механике, движении небесных светил].[66]

In ancient times, music functioned as an organizing principle — whether as Orpheus's lyre or Pythagoras's celestial harmony. It also served as an instrument of construction and destruction — as the principle by which Amphion built his cathedrals or Joshua tore down the walls of Jericho. The *Symphony of Sirens* manifests the former principle via the latter: it strives to organize a new form social existence through the destruction and reconstruction of city space. Turning his attention to modern history, Avraamov adds another feature to this mythical account, the idea that music and labor — as both organizing principles and means of construction and destruction — mutually constitute one another: "From myth to history: music and collective song are indispensable attributes of social life…collective labor, from bargeman to soldier, is unthinkable

65. *Авраамов А. М.* Симфония гудков. Горн. С 109.
66. *Ibid.*

without songs and music" ["От мифа к истории: музыка и массовая песня — неизбежные аттрибуты социальной жизни…коллективный труд (от бурлака до солдата) — не мыслимы без песен и музыки"]. Likewise, if collective labor is unthinkable without music, then every era of labor should yield its own form of musical embodiment. The capitalist era, however, had not yielded such a form: "The high organization of collective factory and agricultural work in capitalist society, it seems, should have been able to create a worthy form of musical embodiment…" ["Высокая организация коллективного фабрично-заводского и артельного труда в капиталистческом обществе, казалось бы, должна создать достойнную форму музыкального воплощения…"].[67] But capitalist society lacked something. Despite its high level of organization, it still required a higher principle of collectivity. This principle, for Avraamov, was the October Revolution; the *Symphony of Sirens* was its musical expression.

"October was necessary," Avraamov writes, "in order to give life to the idea of the *Symphony of Sirens*: the anarchic tendencies in the very system of [capitalist] production — and fear of workers rallying — prevented its realization. The daily chaotic roar [of sirens] was still a 'call to slavery'" […нужен был Октябрь, чтобы дать жизнь идее 'гудковой симфонии': анархические тенденции в самой систем производства и страх перед сплочением производителей, рабочих — не допускали ее реального оформления. Ежеутрений хаотический рев был пока еще 'зовом неволи.'"]. The problem that Avraamov poses here is one of conversion. Namely, how does one convert the sounds of slavery, chaos, and fear into sounds of collective liberation? This problem may be restated in term of ecstatic materialism. Specifically, how does one transform the alienating sounds of everyday factory work into a "song of the future" ["песня будщего"] while still maintaining their material quality as everyday, non-musical sounds — that is, as noise?

67. *Ibid.*

Like “call of slavery,” the phrase “song of the future” comes from the poet, Alexei Gastev. Founder of the Central Institute of Labor, Gastev was a pioneer of Taylorist-style scientific management in the Soviet Union. Lines from his 1913 poem, “Sirens” [“Гудки”], form the epigraph to the *Gorn* instructions: “When the morning sirens roar / in the outlying worker’s districts — / that is not a call to slavery: / that is the song of the future” [Когда ревут утренние гудки / на рабочих окраиах, — это вовсе не зов неволи: это — песня будщего”].[68] For Gastev, converting the call of slavery into the song of the future never really posed a problem. It was simply an error to consider the sounds of sirens alienating. Rather, far from chaotic, these sounds signaled that which was the basis of freedom: unity. At one point laborers went to work at different times, Gastev writes, “[b]ut now, at eight in the morning, the siren’s wail for whole millions. / Now, minute by minute we start together. / Whole millions pick up the hammer in the same moment…” [А теперь утром, в восемь часов, кричат гудки для целого миллиона. / Теперь мы минута в минута начинаем вместе. / Целый миллион берет молот в одно и то же мгновние”].[69] Here, insofar as worker’s routines remain spatially and temporally separate from one another, they are slavery; insofar as they are conducted according to a single spatio-temporal regime, they are liberating. Such an idea is based on the notion of the body as an energy-conserving machine. The more automaton-like this body becomes, for Gastev, the more autonomous it is. Scaled up to encompass all of humanity, this notion becomes the basis for universal freedom. As a means of facilitating this unity, the siren is not the sound of slavery, but the sound of liberation.

Because of his citation of Gastev’s poem, Avraamov is often portrayed as a Soviet Taylorist, a Gastev acolyte. In fact, Avraamov’s conception of the sound of sirens is quite

68. *Гастев А.К.* Гудки. 1913. Quoted in *Ibid.*
69. *Гастев А.К.* Гудки. 1913. Поэзия рабочего труда. 1971. 5-6.

different from Gastev's. For Avraamov, the sounds of sirens are indeed terrifying — they are the basis of a "sound painting of alarm and anxiety."[70] In order to become the sounds of liberation, however, they must first find a form of musical embodiment — particularly one that expresses the unifying principles of the October Revolution. The sounds of sirens, in other words, are not a song of unity in and of themselves; rather, they must be mediated through musical form. Thus far, we have seen how the narrative of the Revolution as alarm, continuous battle, and victory of the Internationale Army functioned in this manner. It allowed listeners to experience the terror of these sounds, after which they were converted into the sounds of victory. A similar pattern of conversion emerges with regard to rhythm. A constitutive feature the symphony, the timing of musical and sonic events — i.e. rhythm — sought to radically restructure the temporality of the everyday. At the same time, the need to realize these rhythms through the temporality of the city led to complications insofar as they had to be imposed from without, oftentimes with militaristic overtones.

Avraamov's theory that music embodies labor practices and vice versa finds its modern roots in the economic theory of Karl Willhelm Bücher, specifically his now all but forgotten book, *Labor and Rhythm* [*Arbeit und Rhythmus*] (1896).[71] According to John MacKay, Bücher's theories were highly influential among artists and theorists affiliated with Vladimir Bekhterev's Psychoneurological Institute in St. Petersburg, including many affiliated with *Proletkul't*, an organization to which Avraamov belonged. Along with figures such as Karl Polanyi, Bücher pioneered the discipline of non-market economics as a branch of economic anthropology. More specifically, as MacKay notes, after close examination of work songs from around the world, Bücher argued that rhythm emerged "out of the need to labor collectively, to amass and apply the

70. *Авраамов А. М.* Симфония гудков. Горн. С 116.
71. Karl Bücher, *Arbeit und Rhythmus* (Leipzig: Hirzel, 1896).

energy of a group…" It was a "mode of corporeal communication, and thus possessed the power both to ease the burden of labor on individuals and to increase productivity." Most importantly, rhythm functioned to unite "workers 'organically,' rather than through the imposition of some external disciplinary schema."[72] On this account, the social power of music arises naturally from the shared application of bodies at work. For Gastev, this shared application is characterized by simultaneity — millions of people functioning as one, millions of hammers rising and falling at the same time. For Avraamov, on the other hand, this idea led to complications since, first, he does not assume such radical unity, and, second, because his symphony does not exclusively concern factory work. Instead, the *Symphony of Sirens* struggled to meet the demands of unity with demands for a rhythmic schema that appears to arise organically from the temporal practices of the city. This led to a conflict of 'natural' and 'mechanical' rhythms throughout the piece.

One method for making a rhythmic schema appear 'natural' — that is, as if it were emerging from the practices of everyday life — was to delegate authority away from the conductor's tower to other parts of the city. Avraamov did this intentionally in accordance with an ideal of non-hierarchical organization, but also as a matter of necessity. The symphony simply could not function if everyone took their cues from the conductor. Instead, districts had to listen to each others' signals before proceeding with planned events. The symphony's rhythm emerged through the interaction of these districts and Avraamov's signals from the harbor. In this regard, two factors are worthy of note. First, the symphony could not have had a time signature except at certain moments (such as the performance of the "Internationale"). Given the sounds and instruments at its disposal, it could not be readily (or interestingly) rendered in 4/4 or 6/8. Second, the delegation of authority to outlying districts, combined with the necessity of retaining

72. John MacKay. Unpublished Manuscript. Quoted with permission of the author.

control near the conductor's tower led to the conflict between rhythms outlined above. Namely, the symphony had to balance its dependence on an imposed time from outside with the pacing of sound and movement from the districts. Here, three temporal schemas emerged: first, external military time; second, a coordinated "machine time," that is, a machine-like movement of people in the districts; third, a "free" time of pause and celebration during which rhythmic schemas were partially suspended.

With regard to military time, we may recall that preparations for the symphony were conducted on the hour and half hour: at 7:00 AM, the flotilla arrived; at 8:30 AM the musicians, at 10 AM the infantry and artillery, and so on. The first half of the symphony (before the dramatic pause) was conducted by regular canon fire into the harbor, possibly in conjunction with semaphore signals (depending on which instructions are to be believed). These temporal impositions would have most likely struck Baku's populace as the least "organic" aspect of the symphony. They did not embody, in Bücher's terms, "natural" work rhythms; rather, they imposed a seemingly arbitrary schema. "In the early 1920s," as Wendell points out, "three different timezones co-existed in Baku, including Petrograd's railroad time schedule, a regional time designated by Tiflis in Georgia, and a local (probably Persian or Turkic) time schedule…"[73] Avraamov's symphony did not embody the work schedules or rhythms associated with these times so much as impose its own time in order to perform the symphony. This does not mean that the symphony enacted a permanent change in Baku's relationship to different time zones. Rather, it sought to realize a new unified rhythm through a temporal incursion into everyday life. This incursion resembles a form of standardization similar to the shift from the Julian to the Gregorian calendar. All at once, the city, which had previously operated according to different senses of time, was organized like a clock around the steady beat of a canon firing out into the harbor.

73. D.D.B. Wendell, "The 1922 'Symphony of Sirens,'" 568.

Similar to its re-organization of space, however, this steady beat would not have struck everyone in the same manner. Indeed, unless one worked in the army, the temporal schema for the first half of the symphony, must have felt rather strange.

With regard to "machine time," the symphony did achieve a greater degree of naturalness. Machine time differs from military time insofar as it embodies a machine-like rhythm emerging from the exchange of human and industrial sounds within the city. Though this rhythm is coordinated with military time, it nonetheless requires the active participation of Baku's inhabitants. This occurs in such instructions such as "On the second half verse [of the 'Internationale'], a joint brass orchestra and automobile chorus enters with the 'Marseillaise.' At the second repetition the whole square as a chorus joins in the celebratory singing" ["На второй полустрофе вступает соединенный духовой оркестр и автомобильный хор с "Марсельезой". При повторении вступает хором вся площадь празднования"].[74] Here, the interaction between crowds, musical instruments, workers' songs, and an automobile chorus presents us with a kind of counterpoint between humans and machines whose sounds are freely exchanged. Unlike the military time imposed from the harbor, this temporality emerges from the city center. It is further extended to the workers' and oil districts with the additions of sirens. In accordance with Avraamov's Gastevian sympathies, the movements of crowds and automobile choruses parallel one another. Likewise, the wail of sirens is no longer signaled by canon fire but by sounds emanating from the crowd. In this sense, the symphony foregrounds an exchange between human and machine sounds and movements — a new kind of rhythm that, following Bücher's logic, emerges from the high organizational capacity of industry.

By contrast, the last rhythm — "free" temporality — resists organizational schemes, whether internal or external. It lacks the organizational potential Avraamov ascribes to music

74. *Авраамов А. М.* Симфония гудков. Горн. С 115.

while simultaneously manifesting music's power of destruction and construction. Free temporality occurs during moments such as the pause after the twenty-fifth canon, followed by the sound of sirens and cheers from the docks. This moment, we recall, symbolizes the conclusion of the period of alarm. Other such moments include those of celebration, during which, for instance, all sirens and steam whistles ring for three minutes. These solemn and celebratory moments are planned into the symphony and represent the "anarchic tendencies" of workers remade into sounds of celebration or reflection. Whatever anarchic quality they retain is present in their lack of organization. A temporal limit can be imposed on them from without, but a schema cannot be imposed on them from within. In this regard, they recall Mikhail Bakhtin's chronotope of the threshold. In his "Forms of Time and Chronotope in the Novel," Mikhail Bakhtin offers a characterization of this experience of time in terms of Dostoevsky's novels, characterizing it as "*crisis* and *break* in a life" in which "time is essentially instantaneous; it is as if it has no duration and falls out of the normal course of biographical time."[75] Similarly, these moments represent a break in the symphony's temporal scheme, one that is ecstatic, albeit in a different sense from ecstatic materialism as I've portrayed it thus far. Rather than putting forward a conception of a transformed future, these moments simply break down time — scrambling it, disorganizing it, but not necessarily building anything from it. The celebratory moments of the symphony trigger actions elsewhere in the city but only insofar as they rupture its musical continuity.

The interaction between these three heterogeneous temporalities characterizes the rhythm of the *Symphony of Sirens*. Following Bücher, the symphony attempts to marshal them into an 'organic' expression of unity as characterized by the shared labor practices of Baku's proletariat.

75. Mikhail Bakhtin, "Forms of Time and the Chrontope in the Novel," in *The Dialogic Imagination*, ed. Michael Holquist (Austin: University of Texas Press, 1981), 248-9.

Their resistance to such an expression, however, points to the complexities of enacting Bücher's ideas on a city-wide scale. In this regard, the symphony's ambitions of creating an inter-ethnic proletarian community outstrip the rhythms of factory work. The unity of industrial labor cannot be realized through the rhythms of the city symphony; rather, the rhythms of the latter resist a coordinated attempt to foster a single rhythmic praxis. A similar dynamic becomes apparent in the following section with regard to the interaction between noise and music.

## II

With the mild sarcasm of scare quotes, the Bolshevik chronicler, René Fueloep-Miller, wrote that the "music" of the *Symphony of Sirens* "could be heard far beyond the walls of the town…;" it was intended to "remind the proletariat of its real home, the factory."[76] Though all sorts of questions remain regarding how the *Symphony of Sirens* sounded, of this we can be sure: it was noisy. This noise is the most direct reflection of what Avraamov called the "anarchic tendencies" of workers unleashed by capitalist industry. As noise, these tendencies required a new form of musical embodiment. The forgoing suggests, however, that this embodiment required a good deal of containment. To a certain extent, both the narrative of the October Revolution and the rhythmic organization of the symphony had to be imposed from without — from the flotilla in the harbor, as it were, and the conductor's tower. In contrast to Fueloep-Miller's statement, the symphony's sound did not extend "beyond the walls of town" so much as get piped in. If we furthermore consider the noise of anarchistic tendencies as an expression of ethnic conflict resulting from capitalist exploitation, then the need to contain them with a symphony takes on an imperialist feel, consistent with the Soviet Union's project of internal colonization of regions formerly possessed by the Russian Empire. In the *Symphony of Sirens*, this conflict between

76. Rene Fuelop-Miller.,*The Mind and Face of Bolshevism*, 184.

expression and containment gets played out through the interaction between noise and the melody of the “Internationale.”

During the course of the symphony the “Internationale” repeats six times. It is sung by choruses, played by a brass band, and most importantly piped through a steam-whistle machine parked aboard a torpedo boat in the harbor. In the *Gorn* instructions, Avraamov dedicates two whole pages to describing this interesting piece of machinery which he refers to as the *magistral’* [магистраль] — literally, the “main,” as in “gas main,” “water main,” or “main line.” A drawing shows this machine as a row of organ-like pipes affixed Mohawk-like to the top of a steam engine. A picture of it from the 1923 Moscow Symphony, on the other hand, presents it as two crisscrossing pipes with small whistles poking out of the top. Exactly what the machine looked like at the Baku performance is not certain. Moreover, it is not possible to tell from the *Gorn* or *Baku Worker* instructions when exactly it played the “Internationale,” though we may be safe in assuming that, since it was the most dramatic event, it most likely played after the pause.

The steam-whistle machine represents a musical reification of a conflict that troubled the Soviet Union from its inception, namely that between worker spontaneity and party consciousness. This conflict was particularly evident in the forms of mass spectacles to which Avraamov’s symphony is related. In *Revolutionary Dreams*, Richard Stites characterized these festivals in terms of two kinds of Bolshevik visions, one ludic the other solemn. For Stites, the first vision was a “carnivalesque image of freedom and dance. It was marked by spontaneous celebration, lighthearted buffoonery in the midst of violent political struggle, constantly self-creating forms of art and entertainment, and the movement of those forms onto the streets and into the villages.” The second vision, on the other hand, was one of “order, solemn monumentality, and myth-making, conditioned by a fear — the anti-iconoclastic fear — that the

masses, if left to their own ludic and Dionysian impulses, would unleash chaos.[77] Stites organizes this opposition geographically and politically as a Dionysian-Apollonian struggle between Petrograd and Moscow, Anatoly Lunacharsky and V.I. Lenin, the energy of the urban masses and the doctrine of the vanguard Party. A participant alongside Lunacharsky in the first conference of proletarian educational organizations in Petrograd,[78] Avraamov would have been particularly aware of this issue. However, in the case of the *Symphony of Sirens,* the conflict did not primarily take on geographic dimensions. Rather, the mass spectacle itself was a means of resolving it. Inside the steam-whistle, the spontaneous and anarchic tendencies of workers — the noises of their labor — were channeled into a conscious worker's anthem — the "Internationale."

There are two possible interpretations of this ideological function. On the one hand, the steam-whistle machine suggests a mediation of the spontaneity-consciousness conflict in favor of the latter term. In this sense, the channeling of workers' energies into the "Internationale" represents a complete conversion of their anarchic potential — a containment strategy. On the other hand, the machine also suggests that worker spontaneity is an integral part of the "Internationale's" performance — the very breath that blows through the instrument. Without worker spontaneity, the machine simply cannot run. Lending further credence to the second interpretation is the fact that the steam-whistle machine does not fully abstract the sounds of work. One would still recognize the sounds of steam whistles in its performance, otherwise there would have been no point in building the machine. The anarchic sounds of work are thus not fully converted into melody but rather retain their character as noise. This use of noise is in accordance with the symphony's overall presentation of industrial sounds, which are not held

77. Richard Stites, *Revolutionary Dreams: Utopian Visions and Experimental Life in the Russian Revolution* (Oxford: Oxford University Press,1989), 79.
78. Lynn Mally, *Culture of the Future*: *The Proletkult Movement in Revolutionary Russia* (Berkeley: University of California Press, 1990), 28.

separate from music but rather constitute it. In this regard, the symphony overturns the distinction between musical and non-musical sounds insofar as it presents the two on a continuum facilitated by the steam-whistle machine.[79] By composing for industrial sounds, the symphony presents so-called noise as simply another element for composition.

In composing industrial sounds into the "Internationale" while still allowing them to retain their character as noise, the symphony presents an often-times overlooked conception of the spontaneity-consciousness paradigm. According to Anna Krylova, this paradigm "posits ideal Bolshevik workers as, necessarily, conscious makers of history who have successfully overcome the spontaneous — that is, chaotic, misleading, and not fully comprehended — dissatisfaction with their condition under capitalism."[80] True Bolshevik workers, on this conception, are rational agents whose consciousness (as opposed to their spontaneity) allows them to break the capitalist system. Krylova goes on to note that, presently, "[h]aving posited the Bolshevik understanding of the spontaneous as a negative element that needs to be overcome, postwar scholars have removed the 'spontaneous' from their research agenda."[81] The *Symphony of Sirens* puts the spontaneous back into focus. With its channeling of worker's anarchic tendencies into music, the symphony demonstrates the importance of worker spontaneity to Bolshevik conceptions of class struggle and worker identity.[82] Specifically, it reveals that worker spontaneity is a crucial element in the overturning of class relations and the victory of the Bolshevik cause. Without the industrial noise driving the steam-whistle machine there would be no way to play a truly working class version of the "Internationale."

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79. The overturning of this distinction is complicated by the symphony's reliance on military sounds — canon fire, artillery batteries, and machine guns. Though industrial, these sounds do not so much represent the anarchic tendencies of workers under capitalist production as they do the might of military power.
80. Anna Krylova, "Beyond the Spontaneity-Consciousness Paradigm: 'Class Instinct' as a Promising Category of Historical Analysis," in *Slavic Review* 62,1 (Spring, 2003), 1.
81. *Ibid*., 2.
82. Krylova's term for the spontaneous in Bolshevik identity is "class instinct" (*Ibid.,* 2).

At the same time, the *Symphony of Sirens* takes a step back from the emphasis on noise and spontaneity that characterized the earliest moment of the October Revolution. Such an emphasis is present in some rather apropos lines from Mayakovsky's "Order for the Army of Art:"

> It is not enough to build a steam engine — / wind up the wheels and it runs. / If the song doesn't raze the station / then what has alternating current done? / Pile sound on sound / and forward / singing and whistling. / There are still good letters: / R / Sha / Shcha
>
> Паровоз построить мало — / накрутил колес и утек. / Если песнь не громит воксала, / то к чему переменный ток? / Громоздите за звуком звук вы / и вперед, / поя и свища. / Есть еще хорошие буквы: / Эр, / Ша / Ща.[83]

Here, Mayakovsky presents worker spontaneity as the sound of destruction, particularly that of a train station. In this regard, he plays on the verb *gromit'* [громить], meaning to raid, to loot. Idiomatically, however, the verb can also mean 'to raise enthusiasm.' The English 'raze' homophonically captures some of this double significance. Thus the poem points out that, for the Army of Art, construction of new industrial capabilities — namely, a steam engine — is not as important as the enthusiasm raised by destruction. Why else have alternating current if not to actually alternate the current of events? The thunderous sounds of this destruction pile up on top of each other as the actual sounds of forward motion. In Russian, the word for 'thunder' [*Grom*] and 'to pile up' [*Gromozdit'*] share an etymological root. This creates an impression of a force of nature building up to march forward, singing. Its song, however, is not mellifluous. Rather, it is composed of some of the harshest sounding letters in the Russian alphabet — R, Sha, and Shcha.

The vision of worker spontaneity here is more radical than Avraamov's. Mayakovsky's poem makes no mention of the "Internationale," nor any other melody that is required to channel the chaos of these sounds in the song of the future. In actually building a steam-engine that performs with the anarchic sounds of industry, Avraamov takes a step back from the poem's

83. *Маяковский В.В.* "Приказ по армии искусств." 10-20. Для голоса. 1923. С 32.

emphasis on spontaneity. Instead, he attempts to strike a balance between the chaotic energy of workers and the line of the Bolshevik Party. At the same time, this attempt is itself complicated by the symphony's over-reliance on military sounds. Whereas the sounds of the Army of Art are those of thunder, smashed pianos, and broken drums,[84] the sounds of the *Symphony of Sirens* are those of canon fire, artillery batteries, machine guns. Though industrial and chaotic, these sounds do not so much represent the anarchic tendencies of workers as they do the might of military power. To a certain extent, this is in keeping with avant-garde noise music's military fetishism — an obsession that is readily apparent in Luigi Russolo's manifesto, *The Art of Noises*.[85] In Avraamov's symphony, however, military sounds are more than just fetishized — they are an overt display of the Soviet power in a country that only recently lost its short-lived independence. In this regard, they are neither spontaneous nor conscious in the Bolshevik sense of either term. They do not, for instance, manifest the worker's chaotic tendencies the way the sirens and automobile choruses do, particularly since these military instruments are not a part of everyday work. Nor do they represent the Bolshevik party line the way the "Internationale" does since, qua sounds, they could just as well represent any invading army. Lastly, with regard to Baku, many of these military sounds appear as coming from outside, particularly as foreign naval force parked in the harbor. They manifest, in other words, the addition of brute force that underwrote the Bolshevik Revolution in Azerbaijan.

As I hope to show in the next section, the manner in which Avraamov navigated issues related to rhythm, noise, and music as forces of social organization is not unique to the avant-

84. "Pull the pianos onto the street, / yank the drum out with a crook! / Drum, / open up the piano / so it cracks / so it thunders." [На улицу тащите рояли, / барабан из окна багром! / Барабан, / рояль роскроя ли, / но чтоб грохот был, / чтоб гром"] (*Ibid*, 21-29). Quoted in conclusion below.
85. Luigi Russolo, *The Art of Noises* (New York: Pendragon Press, 1986).

garde. Rather, it reflected concerns regarding the social character of music that he inherited from the 19th century Russian romantic tradition.

**III**

Prior to the October Revolution, Avraamov wrote a series of articles dealing with issues concerning microtonality, the development of new tuning systems and instruments, and the philosophy of music in general.[86] One of the key themes of these articles was the development of mass culture based on the model of peasant music. An avid collector of folksongs, Avraamov believed that the creativity of all people could be engaged through a technologically mediated form of collective experience similar to that of village singing. This belief became the theoretical basis of the *Symphony of Sirens*, which he saw as a means to address what he called the "social problem" in music. With regard to this problem, Avraamov wrote,

> the social problem in music can be solved one of two ways: the active engagement of the broad masses with musical creativity (the socialization of music) and the perfection of its hitherto archaic *material* technology (the electrification of music). The first way — [a movement] from the village to the city; the second — from the city to the village"
>
> Социальная проблема в музыкальном искусстве решается двумя путями: действенным приобщением к музыкальному творчеству широких масс (социализация музыки) и — усовершенствованием ее доныне архаической *материальной* техники (*электрификация* музыки). Первый путь — от деревни к городу, второй — от города к деревне[87].

For Avraamov, this bi-directional movement would bring city and village — proletariat and peasant — closer together via a mutual exchange of artistic means and methods. The *Symphony of Sirens* attempted to realize this vision through the ethnically diverse spaces of Baku. Having already gone over the resistance of these spaces to this unified vision of culture, I would like to

86. A number of these have been usefully compiled in *Румянцев.* Арс Новый.
87. *Авраамов А.М.* Симфония гудков. Художник и зритель. 1924. No. 1. С 50.

consider here its basis in the Russian romantic musical tradition, particularly as a way of answering the question, to whom does music belong?

For Avraamov, this question is connected with the problem of "aura" in music: What is music's time and place? Where does it inhere? In his 1916 essay, "The Approaching Science of Music and the New Era of Music History" ["Градущая музыкальная наука и новая эра истории музыки"][88], he poses this question in terms of the works of great Russian composers:

> Not long ago we had Taneev and Scriabin…Who, us? Where is this 'us?' In Moscow? In Petrograd? Even in the Grand Duchy of Kiev they only know Scriabin on the basis of a few tours, and the great works of Taneev — even in Kiev — they never heard at all.
>
> У нас еще так недавно был Танеев и Скрябин…У кого? Где это 'у нас'? В Москве? В Петрограде? Ведь даже первопрестольный Киев знает Скрябина лишь по нескольким гастролям, а крупнейшие произведения Танеева там — даже в Киеве — никогда не исполнялись.[89]

The Russian preposition 'У' is both locative and possessive; it communicates both a thing's being in a certain place and its belonging to someone. Thus, as Avraamov poses it, the question "to whom does music belong" becomes a question about where music resides. Avraamov inherits this problematic from Russian romantic composers, most notably the Mighty Handful [Могучая Кучка] — Mily Balakierev, César Cui, Modest Mussorgsky, Nikolai Rimsky-Korsakov, and Alexander Borodin — all of whom sought to compose genuinely Russian music. The group of composers got their name from the literary critic, Vladimir Stasov, who promoted literature, music, and art that drew on distinctly Russian and Slavic themes (as opposed to imitating European ones). Following Stasov's romantic and nationalist inclinations, the mighty handful sought inspiration from peasant traditions — folk songs, rounds, choral singing, etc. — just as ethnomusicological expeditions were making these more widely available. In and of themselves,

88. *Авраамов А.М.* "Градущая музыкальная наука и новая эра истории музыки." Музыкальный современик. 1916. No. 2 . С 99. Reprinted in *Румянцев.* Арс Новый. С 195.
89. *Ibid.*

however, these musical traditions did not seem fit for the European audiences that the composers, as well as Stasov, sought to impress. They had to be transformed in the hands of great composers so as to be a true representation of Russian music. This led to a cultural dynamic that troubled the development of truly "Russian" music over the course of the 19th and early 20th century. Namely, such music had its roots in the peasantry — in peasant traditions — while simultaneously being abstracted from them. Moreover, even with regard to those living in cities, this music belonged to but a few — the educated elite and intelligentsia. The great composers thus created an authentic people's music that was only performed for a select group of people.[90]

In the above passage, Avraamov pokes fun at this dynamic. How could the compositions of great Russian masters truly belong to the people when so few have actually heard them? How could they belong or be located in "us" when we haven't even listened to — let alone played — these compositions? Avraamov, however, does not dismiss the idea that music can belong to the people in this manner. Rather, he proposes to solve the dilemma by means of a performance that resembles the *Symphony of Sirens*: "Imagine that once a year (to dream of more is frightening…) all the great work of our great masters were to be played in all cities, or at least the capitals, wouldn't that be utopia?" ["Но допустим даже, что однажды в год (о большем и мечтать страшно) все крупные произведения наших великих мастеров-художников исполнялись бы обязательно во всех… [author's] ну, хотя бы губернских городах — не правда ли утопия?"][91] Here, Avraamov proposes a city-wide performance of the works of great Russian composers. If whole cities could hear these works, would they not belong to their inhabitants? To be fair, this performance does not address the issue of appropriating musical forms that belong to the peasantry. This is largely because Avraamov believes that the peasantry still have their own

90. On music and Russian national identity see Richard Taruskin, *Defining Russia Musically*: *Historical and Hermeneutical Essays* (Princeton: Princeton University Press, 1997), especially chapter one.
91. *Авраамов А.М.* "Градущая музыкальная наука и новая эра истории музыки." С 195.

living traditions. They therefore have no need of “Russian” music: “true creativity is still alive in the bowels of the [peasant] folk, and there, where it is in fact alive, there is no room for Taneev and Scriabin — or even Glinkin, Borodin, and Rimsky-Korsakov” [“…в недрах народных еще живо свое творчество, и там, где оно действительно живо, Танееву и Скрябину — даже Глинке, Бордину и Римскому-Корсакову — не место…”].[92] It is not that Avraamov feels that the peasantry are not worth the effort; rather, on his romantic conception, the village song is more advanced than the concert hall performance. Avraamov is thus concerned with giving city-dwelling people a kind of music that resembles peasant traditions. This concern does not lead immediately to the *Symphony of Sirens*, however; rather, Avraamov turns to possibilities afforded by new technologies of mechanical reproducibility.

In the same essay, Avraamov notes that today (1916), when it comes to art, we are not modern; rather “we are still craftsmen, and what’s worse, we’re craftsmen as a matter of principle”[93] [“мы до сих пор кустари, и, что хуже свего, кустари принципиальные”]. Craftsmanship, he continues, is something for museums and art lovers. He then takes a moment to retell an anecdote that, for him, illustrates this principle of craftsmanship. The anecdote concerns a discussion he had with a friend regarding the statue of the Venus de Milo in the Louvre. The friend argues that it is “impossible to recreate the Venus de Milo, that even the most ideal copy would be dead, even if its material and form were flawlessly and mathematically reproduced” […что самая идеальная копия с нее будет мертвой, даже если и материал, и форма будут повторены безукоризненно математически.][94] Avraamov, however, replies that he’s not so sure. He asks his friend to tell him what, exactly, the difference between the original and copy consists in. He allows that there is a difference in feeling between standing in front of

92. *Ibid*.
93. *Ibid.*
94. *Ibid*.

the original and the copy, but that, then again, a *really* good copy would fool him even in this feeling:

> I admit that the feeling one experiences contemplating the original might be a special one, related, for example, to that sacred trembling which accompanies the examination of an authentic Bach manuscript. However, in the case of this feeling, a trick is certainly possible — if I do not suspect anything, I will look upon a forgery with no less a feeling of "sacred trembling."
>
> Я допускал, что чувство, переживаемое при созерцании оригинала, может быть особенным, родственным, например, тому священному трепету, с которым рассматриваешь подлинные рукописи Баха, но ведь в этом случае вполне возможен обман — на искусную имитацию я, не подозревая о ней, буду смотреть с неменьшим 'священным трепетом'…[95]

To this, the friend does not have a reply. He simply insists that even in the case of an exact replica there is a qualitative difference between the original and the copy. Avraamov's description of the feeling of standing in front of the original as a "sacred trembling" gives us a clue as to what this difference consists in. It is the object's belonging to a particular time and place — what Benjamin, writing twenty years later, calls aura, here understood as being the product of craftsmanship. In the face of mathematical (i.e. mechanical) reproduction, the principle of genuine craftsmanship (i.e. aura) becomes an issue. For Avraamov, however, this issue not only can, but must be resolved without loss of aura. If it is not, he writes, then every single person in search of "authentic aesthetic enjoyment" ["подлинный художественный наслаждение"] would have "to make a pilgrimage to the Louvre or the Vatican" ["совершать паломиничество в Лувр или Ватикан"]. How, then, can this art belong to the masses if so few of them can actually afford to experience it?

Against such an absurdity, Avraamov proposes making exact copies — every city should have its own statue of the Venus de Milo. Not interested in differences between music and painting, he illustrates this proposal in terms of music. He claims that when a great pianist plays

95. *Ibid.*, 196.

the piano, the pressure of his finger on the keys cause unique vibrations in the strings. If we can capture these vibrations then "we have in our hands nothing less than the *negative* [image] *of creative ecstasy*" […мы имеем в руках не что иное как *негатив творческого экстаза*]. If we recreate these very same vibrations, then we'll have a "positive image — authentic creative ecstasy" [позитив — подлиный творческий экстаз"].[96] This creative ecstasy is similar to the sacred trembling that Avraamov described earlier. Indeed, for him, this ecstasy exists as a kind of trembling — the vibrations of air waves caused by an instrument's strings. The possibility of registering and distributing copies of these vibrations means that a composer's performance (indeed, the actual composer may perform) will finally belong to the masses. In this sense, music as sound — as vibration of airwaves — has a location, both in the people that hear and play it, as well as in the instruments that record and preserve it. Recording technology does not lessen the auratic experience of music; on the contrary, for Avraamov, it only seems to heighten it.

If this solution to the question to whom does music belong seems rather naïve it is important to remember that it is not without historical precedent. Indeed, such notions were common among ethnomusicologists and folk music enthusiasts of the day. Another Stasov acolyte, Evgeniia Lineva, for instance, considered the advent of the phonograph to be a means of finally securing peasant songs. The first person to record peasant songs, her 1903 and 1906 song collections sparked immense interest in their microtonal and polyphonic structures. These had up untill then evaded western dodecaphonic notation. Like Avraamov, Lineva also believed that folk music inhered in the people who performed it. Now, the creative ecstasy they possessed could finally be transferred to the page:

> What had seemed impossible was now a fact. Songs, echoing somewhere in space — filling the fields, forests, and villages, unconquerable, uncatchable — could now be captured on the cylinder made of delicate resin, carried over onto paper in the same

96. *Ibid.*, 196.

> whimsical form which flowed from the poet's mouth — from the mouth of the people — and preserved for posterity for many years to come.
>
> Казавшееся невозможным стало реальным фактом. Песни, реявшие где-то в пространстве, оглашавшие поля, леса и деревни, непокорные, неуловимые, закреплены на валике из хрупкой мастики, перенесены на бумагу в той самой прихотливой форме, в которой они вылились из уст поэта — народа, и сохраняться многие годы на память потомству.[97]

Here, a relationship emerges between sound, recording technology, and paper that localizes the poet's voice onto the page. Despite the poverty of recording technology at the time, for Lineva, the peasant's song does not degrade in quality as it is transferred from one medium to the next. More importantly, the distance of the voice roving over the fields and forests — what, for Benjamin, would be its auratic quality — is not lost once it is transferred to paper. On the contrary, it is secured for future generations in its selfsame whimsical form. The songs that belonged to the people [народ] could now be located on the page.

Interestingly, Avraamov's vision of a technologically mediated experience of aura — of "sacred trembling" or "creative ecstasy" — is the inverse of mechanical reproduction as we know it today: not a multitude of little recorded copies sent out to individual homes, but one central mechanical reproduction being delivered in its entirety to an entire city — the Venus de Milo in every square. On such a model, the works of Scriabin could be played for (and belong to) a whole multitude, while the performance itself would still be singular and collective. If we were to extend Avraamov's (and Lineva's) logic further, then this vision would resemble a tremendous inscription machine — one that inscribes the impression of a composer's performance onto the masses just as it transfers his music to the phonograph. The *Symphony of Sirens* emerged from this context. Though not mechanically reproducible *per se*, it was an attempt to address the same

97. Quoted in *Кан-Новикова. Е.* Собирательница Русских Народных Песен, Евгения Линева. Москва. 1952. С 46.

questions surrounding the possession and localizability of musical and creative experience. Since the means of mechanical reproducibility on a mass scale — i.e. the radio — was not yet sufficiently developed, Avraamov relied on a performance that touched or involved as many people as possible. This reliance on audience participation was in part the realization of a radically egalitarian vision of seemingly non-hierarchical organization. At the same time, it was also an attempt to realize a (in principle) mechanically reproducible form of mass auratic experience.

By conceiving a symphony in which an entire city could participate, Avraamov sought to create a kind of music that inhered in and belonged to the masses. This idea, however, was itself the product of a novel conception of mechanical reproducibility — namely, the notion that mechanical reproducibility did not diminish the cult value of an art object. Rather, for Avraamov, true mechanical reproducibility meant that even the cult value of an object — which could not exist anywhere but *in* the very materials of the object itself — could in principle be reproduced. If music's cult value existed in the actual vibrations of air generated by the performance (so-called "creative ecstasy"), then a collective performance meant that all people who heard and took part in this performance — who heard or produced these vibrations — were bearers of this value. Moreover, though it was not a mechanical reproduction *per se*, the *Symphony of Sirens* pointed toward a future in which this cult value could be technologically recreated for millions as a radio broadcast. Perhaps no feature of the symphony illustrates this last fact more than the conductor's tower. Avraamov briefly describes this structure in the *Gorn* article. It consists of telegraph poles fastened together in the formation of a Swedish mast, a structure that, as Wendell notes, was "originally designed to mount radio antennae." The conductor's tower thus established "an analogous relation between radio transmissions and the aural and temporal

effects of the Symphony."[98] More importantly, this tower became the means of a transmission that allowed the city to perform together as if it were a small village. It was a means of inscribing the cult value of music onto the inhabitants of a city, playing through them as parts of a tremendous megaphone — one that, following the logic of the Baku Congress, could potentially be heard in London, Paris, Constantinople, and New York. In this regard, the tower recalls such global technological visions as Velemir Khlebnikov's "Radio of the Future" (1921), in which the poet imagines the radio forging "continuous links in the universal soul" of mankind through "Radioreadingwalls" and radio auditoriums. In the *Symphony of Sirens*, this vision of a mechanically facilitated universal soul was realized through a performance that transformed Baku into both amplifier and auditorium.

**Conclusion**

In "Order for the Army of Art," Mayakovsky writes,

> It's not enough to build rows in pairs / or wear trousers with a stripe / All Soviets won't move an army / unless a march gives them the might. / Pull the pianos onto the street, / yank the drum out with a crook! / Drum, / open up the piano / so it cracks / so it thunders."
>
> Это мало — построить парами, / распушить по штанине канты / все совдепы не сдвинут армий, / если марш не дадут музыканты. / На улицу тащите рояли, / барабан из окна багром! / Барабан, / рояль раскроя ли, / но чтоб грохот был, / чтоб гром.[99]

Similar to Avraamov's conception, music here functions as a principle of social organization — namely, a march. At the same time, this march is anything but organized; rather, it is a destructive force. It is not a steady rhythm, but a crashing noise. Moreover, its orders are executed not (primarily) by humans, but by instruments. In a slapstick-like episode, the poem

98. D.D.B. Wendell, "The 1922 'Symphony of Sirens,'" 551.
99. *Маяковский В.В.* "Приказ по армии искусств." 21-29. Для голоса. 1923. С 32.

orders the drum to be yanked out with a crook. Instead of using the drum to play the march, however, the poem commands it to break open the piano, causing a thunderous [гром] crash.[100] In doing so, the drum — whether willingly or unwillingly is not clear — removes the piano from power, thereby ushering in a new musical period — one that embodies the crashing sounds of the proletariat rather than melodic sounds of bourgeoisie.

An apocryphal story tells that Avraamov tried to carry out Mayakovsky's orders literally — that is, he sought an order from the commissar of enlightenment, Anatoly Lunacharsky, mandating that all pianos be destroyed. Another story — this time Avraamov's own — claims that as a Narkompros commissar in Dagestan he fell out of favor with the local Communist Party due to his willingness to confiscate the pianos of the Muslim upper class. In the *Symphony of Sirens*, however, Avraamov tried to fulfill the orders of the Army of Art using a different tactic. Rather than cracking open or confiscating pianos, he conducted a noise march for an entire city, rearranging its spatial layout in the hopes of overturning established principles of hierarchy and order. From the foregoing, I hope to have shown how this treatment of space as aesthetic raw materials not only utilized the physical and symbolic spaces specific to Baku, but also how these spaces resisted and challenged their rearrangement. In accordance with the poetics of ecstatic materialism, these spaces were not mere symbols in a war against bourgeois everydayness (*byt*); rather, for Avraamov, they contained their own transformative force in the form of "anarchistic tendencies." At the same time, the attempt to harness this force as noise led to problems insofar as Avraamov conceived of it primarily in terms of economic relations of exploitation as opposed to colonial relations. In this regard, the *Symphony of Siren*'s orientation toward the future floundered due to its unwillingness to listen to the past.

100. This command is made through a homophonic pun. In Russian, the verb *raskroit'* — to break open, to cut out — sounds similar to *raskryit'* — to open (as in a piano or a window).

With regard to its use of rhythm, noise, and music in the construction of a single proletarian identity, the symphony also ran into difficulties. The unified rhythm of factory work was unrealizable on a city-wide scale; instead, in its attempts to manage a diverse array of rhythms, the symphony had to impose a military time from the harbor, though pockets of 'free time' — of pause and celebration — nevertheless manifested themselves throughout this time scheme. With regard to its management of noise, the symphony was somewhat more successful, particularly insofar as it devised an instrument — the steam-whistle machine — that could channel noises without abstracting their sound. In this manner, the symphony was able to strike a balance between worker spontaneity (noise) and party consciousness (the "Internationale"). Lastly, as I hope to have shown, this attempt to compose music for a unified proletariat ultimately took over a discourse from the 19th century Russian romantic tradition surrounding the social character of music. This discourse concerned two interrelated questions regarding the aura of music — where does it inhere and to whom does it belong — that were complicated by the advent of mechanical reproducibility. The symphony addressed these question with the creation of an auratic form of mass experience that anticipated the radio as means of global performance. In the next chapter, I will show how this idea, present first and foremost at the local level, at the level of village and city, gets taken over at the global level in Bertolt Brecht's radio play, *The Flight of the Lindberghs*.

## II. Of Misuc and Music: The Gathered and the Total in Bertolt Brecht's *Lindbergh's Flight*

> I understand perfectly when a musician says today: "I hate Wagner, but I can no longer endure any other music." But I'd also understand a philosopher who would declare: "Wagner sums up modernity. There is no way out, one must first become a Wagnerian."
>
> — Friedrich Nietzsche, *The Case of Wagner*[1]

> Brecht's rejection of certain sorts of music was so extreme that he invented another variety of music-making, which he called 'misuc.' Misuc he regarded as a way of music-making basically differing from music, since it is misuc and not music."
>
> — Hanns Eisler, "Bertolt Brecht and Music[2]

### Introduction

First performed on 27 July 1929 at the Baden-Baden Chamber Music Festival, Bertolt Brecht's radio play, *Lindbergh's Flight*, along with its subsequent publication as *The Flight of the Lindberghs* (1930), marks the movement of Arseny Avraamov's *Symphony of Sirens* beyond the borders of the city. The play represents a global moment in the development of the city symphony through its multimedia use of music, noise, and spoken text, acoustic apparatuses (radio, telephone, loudspeaker), and audial techniques (collective singing, counterpoint) to overcome or otherwise challenge borders. Instead of focusing on a particular city, the play attempts to structure a global polis. More specifically, it seeks to foster a geographically disparate community of listeners as performers by having them collectively sing the part of the play's main character — Charles Lindbergh. In doing so, I argue that the play seeks to address a number of concerns central to Richard Wagner's notion of the *Gesamtkunstwerk*. As I hope to show, Brecht's play is a flawed attempt to upgrade the *Gesamtkunstwerk* for the age of mechanical reproducibility by shifting its conception of totality from one that is "organic" to one

1. Friedrich Nietzsche, *The Case of Wagner*, in *The Birth of Tragedy* and *The Case of Wagner*, trans. Walter Kaufmann. (New York: Vintage Books, 1967), 156.
2. Hanns Eisler, "Bertolt Brecht and Music" (1957), in *Brecht as they Knew Him*., trans. John Peet, ed. Hubert Witt (New York: International Publishers, 1974), 94.

that is “mechanic.” This attempt seeks to redeem the egalitarian political potential of Wagner’s idea but ultimately manifests a similar tension between egalitarian and totalitarian tendencies that characterizes the *Gesamtkunstwerk* as a whole.

My argument for this thesis consists of four parts. In part one, I argue against the idea the Brecht’s work and ideas constitute a break with the Wagnerian tradition. Instead, I claim that Brecht, while posturing against this tradition, is in fact concerned with many of its defining issues. These include what Danielle Follett and Anke Finger have called the *Gesamtkunstwerk’s* “ambition to borderlessness;” its structuring of a political community modeled on a romanticized conception of the Athenian polis; as well as its defining conflict between totalitarianism and egalitarianism. This conflict is characterized by two senses of the participle “*gesamt*” — the “gathered” and the “total.” In part two, I examine how the first staging of Brecht’s play in Baden-Baden sought to address these issues through audience participation and what Brecht would later call the “separation of elements” — modes typically associated with Brecht’s attack on the *Gesamtkunstwerk* as a hypnosis inducing “smelting process” [“*Schmelzprozeß*”] by which various artistic elements, along with the spectator, are melded together into a seemingly organic whole. Brecht’s ideas, I claim, do not reject the *Gesamtkunstwerk’s* aims outright, but rather serve to modify its communitarian ambitions. Instead of an organic work in which parts have been fused together to the point where (according to Brecht) they are indistinguishable from one another, Brecht proposes a mechanical whole in which parts operate toward the same goal while still maintaining their distinct function. At the same time, as I hope to show, the first performance’s attempt to enact audience participation and the separation of elements succumbed to a number of difficulties such as, for example, the audience’s own refusal to participate. This

resistance of the performance to the playwright's conception characterizes one of *Lindbergh's Flight's* partial failures.

Part three shifts the focus of this chapter from the staging of the play to its music and text. Here I investigate Brecht's conception of "misuc" as a mode of distancing the spectator/listener from the work of art — that is, as a *Verfremdungseffekt*. Misuc is meant to undermine the *Gesamtkunstwerk's* tendency to create an environment that hypnotizes the listener. Instead of manifesting a Schopenhauerian substrate of irrational will, misuc serves what Brecht conceives of as a rational end — getting listeners to think. This thinking, however, does not so much concern a critical reflection on the music being performed, so much as a refusal to be moved by it. In other words, the purpose of misuc is to get the listener to ignore the music. At the same time, I argue, that this mode of separating the listener from the music is part of a re-conception of how the *Gesamtkunstwerk* ought to function. Its structuring of a borderless community take place not by means of listeners passionately enraptured by the work of art, but by means of mechanized participants whom the work does not move. Lastly, part four examines what lies behind this conception of *Lindbergh's Flight*, particularly as an apparatus. Part of Brecht's critique of the *Gesamtkunstwerk* is that it obscures the means by which it operates. This also happens to be the same critique he levels against contemporary German uses of the radio as an apparatus. For Brecht, radio had to be transformed from a distribution apparatus — a mode of disseminating information — to a communications apparatus [*Kommunikationsapparat*] — a mode of connecting listeners as speakers.[3] Such an apparatus would be accountable to the entire community, especially with regard to how it formulated ideology.[4] As I hope to show, in this regard, *Lindbergh's Flight* conceals many of the material and theoretical bases that underpin this

3. Bertolt Brecht, "The Radio as a Communications Apparatus," in *Bertolt Brecht on Film and Radio*, 42 / "Der Rundfunk als Kommunikationsapparat," in *Werke* 21, 552.
4. *Ibid*.

conception of the radio as a pedagogical instrument that overturns the distinction between consumer and producer. Specifically, Brecht's conception is based on the idea of the radio as a *wired* (as opposed to wireless) apparatus. This idea is related to a behaviorist conception of the human being as a wired organism — a man-machine. Brecht takes over this conception from the Russian neurologist, Vladimir Bechterev, via the pedagogical experiments of the Latvian revolutionary, Asja Lacis — specifically her ideas on "leaderless learning" in the children's theater. The relationship between the two ideas presents a mechanized conception of community as a leaderless automaton — one whose parts can be conditioned to serve a single project. In what follows, I hope to show how this project reproduces a number of the *Gesamtkunstwerk's* defining problems.

**I. Brecht contra Wagner**

Bertolt Brecht developed, as did so many of his contemporaries, in an atmosphere suffused with Wagner's music and ideas. As a young man, he would silently conduct the Sorcerer of Bayreuth's operas in his room; Brecht claimed that he could hear the music in his head.[5] A childhood friend, Johann Harrer, recalls that *Tristan and Isolde* had stood for a time on the young dramatist's music stand. Brecht's first wife, Marianne Zoff, had been an opera singer at the Augsburg Stadttheater, playing parts in a number of Wagner's operas including *Lohengirin, The Valkyrie*, and *The Rheingold*. Likewise, Brecht's collaborator, Kurt Weill, who composed the music for *Lindbergh's Flight* along with Paul Hindemith, received his musical education in a Wagnerian context. Weill's hometown, Dessau, was considered a North German Bayreuth. In Berlin, Weill "studied composition with the Wagnerian Engelbert Humperdinck," whose most famous opera,

5. Vera Stegmann, "Brecht contra Wagner: The Evolution of the Epic Music Theater," in *A Bertolt Brecht Reference Companion*, ed. Siegfried Mews (Westport, Conn: Greenwood Press, 1997), 246. Credit for the irresistible title of this section is due to Stegmann.

*Hansel and Gretel* (1893), displayed a typically Wagnerian synthesis of folk legend and melodrama.[6] Weill also "spent two years in the town of Lüdenscheid" where he conducted several of Wagner's operas, notably *The Flying Dutchman.*"[7]

The cult of Wagner extended a long shadow over the musicians, composers, and artists of Brecht's time. In accordance with Nietzsche's statement, one either grudgingly accepted Wagner or else reacted against him. Not surprisingly, many avant-garde composers including Weill, Hindemith, Eric Satie, Hanns Eisler, Ferrucio Busoni, and Igor Stravinsky — many of whom worked with or influenced Brecht[8] — took the latter route, albeit for different reasons. Weill, for instance, did not so much reject Wagner as consider his musical style exhausted. Brecht, on the other hand, is often presented as having broken with the Wagnerian tradition completely. In an otherwise informative piece, Vera Stegmann writes, "Brecht's attitude toward Wagner changed throughout his life, from that of cautious respect that bordered on artistic fascination in his early years to a complete and radical rejection of all Wagnerian concepts in his later life once he had formulated his own style."[9] By contrast, I would like to suggest that, while Brecht's attitude may have been one of radical rejection, his practice, and even a number of his most influential ideas, were not. In making this suggestion, however, I would also like to avoid the claim made by Mathew Wilson Smith: namely, that *qua* technically-mediated *Gesamtkunstwerk, Lindbergh's Flight* is Brecht's "greatest failure" on account of its aesthetics of totality.[10] Rather, I argue that *Lindbergh's Flight* is only a partial failure insofar as it struggles to reconcile a tension at the heart

6. First conducted by Richard Strauss, the opera was a huge success. Though rarely performed today, it plays an interesting role in the history of broadcast music. In 1923, The Royal Opera House of London chose to perform it as their first radio opera, and seven years later it was performed in the first live broadcast from the metropolitan opera in New York. In this regard, the opera may serve as anti-thesis to Brecht's own ideas on how music should be performed over the radio (see below).
7. Stegmann, "Brecht contra Wagner," 240.
8. On Brecht's musical influences see Thomas R. Nadr, "Brecht and his Musical Collaborators," in *A Bertolt Brecht Reference Companion*, ed. Siegfried Mews (Westport, Conn: Greenwood Press, 1997), 261.
9. Stegmann, "Brecht contra Wagner," 245-6.
10. Mathew Wilson Smith, *From Bayreuth to Cyberspace* (New York: Routledge, 2007), 91.

of the *Gesamtkunstwerk* between two senses of "*gesamt*" — the all-encompassing "total" and the fragmentary "gathered." In this regard, *Lindbergh's Flight* is no more no less a failure than any other *Gesamtkunstwerk* — Wagner's included — that sincerely attempts to navigate the demands of these two principles.

"What is 'total' in the German expression *Gesamtkunstwerk*," writes Olivier Scheffer, "is precisely the gathering, the collection of different parts, and therefore the transgression of boundaries: *gesamt* is a past participle used as an adjective, derived from the archaic verb *samenen* (*sammeln* in its present form), which means 'to assemble, gather, collect.'"[11] True to this spirit, the *Gesamtkunstwerk* itself is a heterogeneous and oftentimes contradictory concept with an aesthetic and theoretical history that stretches beyond Wagner. At the same time, in Wagner, we see how these two conceptions of the *Gesamtkunstwerk* — as something gathered and something total — come into conflict with one another. Written in the aftermath of the failed revolutions of 1848, Wagner's two essays — "Art and Revolution" and "The Art-work of the Future" — present the *Gesamtkunstwerk* as a vision at once revolutionary and reactionary — gathered and total — of a global community modeled on the ancient Greek city-state. In particular, Wagner saw Athens as the embodiment of a pre-Babelian artistic, political, and cultural unity. In "Art and Revolution," he proclaims, "[i]f the Grecian Art-work embraced the spirit of a fair and noble nation, the Art-work of the Future must embrace the spirit of a free mankind, delivered from every shackle of hampering nationality; its racial imprint must be no more than an embellishment, the individual charm of manifold diversity, and a cramping barrier" ["Umfaßte das griechische Kunstwerk den Geist einer schönen Nation, so soll das kunstwerk der Zukunft den Geist der freien Menschheit über all Schranken der Nationalitäten hinaus umfassen;

11. Olivier Sheffer, "Variations on Totality," in *The Aesthetics of the Total Artwork*: *On Borders and Fragments*, ed. Anke Finger and Danielle Follett (Baltimore: The Johns Hopkins University Press, 2011), 32.

das nationale Wesen in ihm darf nur ein Schmuck, ein Reiz individueller Mannigfaltigkeit, nicht eine hemmende Schranke sein"].[12] Such an overcoming of barriers bears the marks of Wagner's utopian socialist and anarchist leanings. Wagner, recalled one contemporary, the music critic Eduard Hanslick, was "all politics: with the victory of the revolution, he was convinced, would come a total rebirth of art, society, and religion."[13] Indeed, prior to writing *The Art-work of the Future*, Wagner had participated alongside August Röckel and Mikhail Bakunin in the barricading of Dresden. He had read Ludwig Feuerbach, most likely *The Essence of Christianity* (1841) and *Principle of the Philosophy of the Future* (1843), and had held frequent discussions with fellow radicals at his home.[14] These discussions no doubt influenced Wagner — then the Kappelmeister of the Dresden Hoftheater and already accomplished composer of thirty-six — in his belief that "only *Revolution*, not slavish *Restoration*, can give us back the highest Art-work" as an expression of universal community ["Aber eben die Revolution, nicht etwa die Restauration, kann uns jenes höchste Kunstwerk wiedergeben"].[15]

At the same time, with its emphasis on unity, Wagner's vision also hints at the composer's future rejection of anarchist ideas. "[I]n its flowering time," he writes, "Grecian Art was *conservative*, because it was a worthy and adequate expression of the public conscience: with us, true art is *revolutionary*, because its very existence is opposed to the ruling spirit of the community" [Zur Zeit ihrer Blüthe war die Kunst bei den Griechen daher konservativ, weil sie dem öffentlichen Bewußtsein als ein gültiger und entsprechender Ausdruck vorhanden war; bei uns ist die echte Kunst revolutionär, weil sie nur im Gegensatze zur gültigen Allgemeinheit

12. Richard Wagner, "Art and Revolution," in *The Art-Work of the Future and Other Works*, trans W. Ashton Ellis ( Lincoln: University of Nebraska Press,1993), 53-4 / Wagner, W.: Die Kunst und die Revolution. In: Gesammelte Schriften und Dichtungen von Richard Wagner. G.W. Fritzsch. Leipzig: 1897, Bd 3, 30.
13. Quoted in Juliet Koss, *Modernism after Wagner* (Minneapolis: University of Minnesota Press, 2010), 3
14. Koss, *Modernism after Wagner*, 4.
15. Wagner, "Art and Revolution," 53 / "Die Kunst und die Revolution," 30.

existirt"].[16] While not "slavish *Restoration*," such an idea nevertheless has its lapsarian moment, a feature that often functions as the bridge between the revolutionary left and the radical right. For Wagner, this moment is the vision of a community — a *Volk* — defined by a common desire, a people, in other words, that shares a common intention. "The 'Folk'," he writes, "is the epitome of all those men *who feel a common and collective Want*. To it belong, then, all of those who recognize their individual want as a collective want, or find it based thereon; ergo, all those who can hope for the stilling of their want in nothing but the stilling of a common want,…" [Das Volk ist der Inbegriff aller Derjenigen, welche eine gemeinschafliche Noth empfinden. Zu ihm gehören daher alle Diejenigen, welche ihre eigene Noth als eine gemeinschaftliche erkennen, oder sie in einer gemeinschaflichen begründet finden; somit all Diejenigen, welche die Stillung ihrer Noth nur in der Stillung einer gemeisamen Noth verhoffen dürfen,…"].[17] A "common want," however, is nothing other than the collective need of the Folk, for it is "*the Folk alone that acts according to Necessity's behests*,…" ["nur das Volk handelt nach Nothwedigkeit"].[18] This circular account of positive freedom — the folk are those who feel a common want; those who feel a common want are the folk — points to the reactionary quality of Wagner's radical vision: its breaking down of barriers imagines a society in which there is no difference.

The movement of the *Gesamtkunstwerk* — from city-state to free mankind — recalls that of the city symphony; it is a movement from the local to the global, in which principles of local connectivity are, as it were, *writ large*. Indeed, Wagner's conception of the *Gesamtkunstwerk* is reminiscent of Plato's *Republic* in its modeling of the collective on the basis of the individual and *vice versa*. As I pointed out in the introduction, such a movement manifests what Danielle Follett

16. Wagner, "Art and Revolution," 52 / "Die Kunst und die Revolution," 28.
17. Richard Wagner, The "Art-Work of the Future," in *The Art-Work of the Future and Other Works*, 75 / Wagner, W.: Das Kunstwerk der Zukunft. In: Gesammelte Schriften und Dichtungen von Richard Wagner. G.W. Fritzsch. Leipzig: 1897, Bd 3, 48.
18. Wagner, "The Art-Work of the Future," 75 / "Das Kunstwerk der Zukunft," 48.

and Anke Finger term the *Gesamtkunstwerk's* "aesthetic ambition to borderlessness." To reiterate, this ambition manifests itself in three ways: first, as an aesthetic borderlessness — a "lack of boundaries between arts and genres;" second, as a political borderlessness — a "transgression of the borders between art and life or between art and society; third, as a metaphysical borderlessness — "a merging of present, empirical reality with a nonpresent, or not-yet-present."[19] Brecht's *Lindbergh's Flight*, I argue, struggles to reconcile the above two senses of *gesamt* in terms of these three ambitions to borderlessness. The totalizing aspect manifests itself in the way the play seeks to structure a uniform community of semi-mechanized listener-participants; the gathered aspect reveals itself through a Marxist aesthetics of disruption and critique of the material and technical structures that maintain a dominant bourgeois ideology. The conflict between these two sense of *gesamt* is ultimately an irreconcilable tension within *Lindbergh's Flight* and its subsequent publications and productions.

## II. Baden-Baden, 1929: Staging *Lindbergh's Flight*

Similar to the *Symphony of Sirens*, *Lindbergh's Flight* is about the overcoming of borders and boundaries through sound. The play takes the story of Charles Lindbergh's 1927 transatlantic flight onto the airwaves, chronicling the airman's journey from New York to Paris in seventeen montage-like episodes. In these we hear the pilot making preparations for his journey, battling the personified forms of fog, snow, and fatigue, comforting the *Spirit of St. Louis's* purring engine, and arriving triumphantly in Paris. A further border is crossed in the figure of Lindbergh himself, conceived as the embodiment of a collective. Revised for publication in 1930 under the

19. Danielle Follett and Anke Finger, "Dynamiting the *Gesamtkunstwerk*: An Introduction to the Aesthetics of the Total Work of Art," in *The Aesthetics of the Total Artwork*: *On Borders and Fragments*, ed. Anke Finger and Danielle Follett (Baltimore: The Johns Hopkins University Press, 2011), 3-4.

title, *The Flight of the Lindberghs*: *A Radio-learning-play for Boys and Girls*,[20] the radio experiment gave the role of the pilot to a chorus of "Lindberghs," thus underscoring his ability to reconcile the one and the many through what Brecht calls "*collective I-singing* (I am Charles Lindbergh, I am setting forth, I am not tired, etc)…" ["*gemeinsame Ich-Singen* (Ich bin Charles Lindbergh, ich breche auf, ich bin müde usw.)"].[21] His (their) plane, the *Spirit of St. Louis* — to which the German text refers to as an *Apparat* (apparatus) — implies the potential global reach of the radio as a "communications apparatus" [*Kommunikationsapparat*], as well as the bi-directional capability of the telephone (in German one often picks up the receiver and says "am Apparat"). Most importantly, for Brecht, all these border crossings demonstrate a mode of artistic and musical production that overcomes the divide between audience and performer — a mode of production in which, in the words of Marc Silberman, "the ear is to become a voice."[22]

The ear becoming voice concerns, primarily, the second form of the *Gesamtkunstwerk's* ambition to borderlessness — a political transgression of borders that "invites creative 'audience' participation and that often aims toward some kind of societal transformation."[23] In *Lindbergh's Flight*, this transformation occurs through a re-functioning (*Umfunktionierung*) of the radio as a communications apparatus. For Brecht, the term 'apparatus' — as opposed to medium — encompasses all aspects of cultural production, "from the actual technological equipment, to promotion agencies, to the institutions such as the opera, the theatre, the radio, etc., as well as the class that is in possession of the means of production."[24] Under capitalism, the apparatus is set

20. Brecht, B.: Der Flug der Lindberghs: Ein Radiolehrstück für Knaben und Mädchen. In: *Bertolt Brecht*: *Werke.* Suhrkamp. Berlin 1988, bd 3. A later version of the play — *Der Ozeanflug* — struck Lindbergh's name for them title on account of his Nazi sympathies.
21. Bertolt Brecht, "Explanations [about *The Flight of the Lindberghs*], in *Bertolt Brecht on Film and Radio*, trans. and ed. Marc Silberman (London: Methuen, 2000), 40 / "Zu: 'Der Flug der Lindberghs,'" in *Werke* 24, 89.
22. Marc Silberman, *Brecht on Film and Radio*, 41.
23. Finger and Follet, "Dynamiting the *Gesamtkunstwerk*," 3-4 (above).
24. Roswitha Mueller, "Learning for a New Society: the *Lehrstück*," in *The Cambridge Companion to Brecht*, ed. Peter Thomson and Glendyr Sacks (Cambridge: Cambridge University Press ,2006), 103.

up to maintain passive consumption, leading to restrictions on both the production and consumption of art. Artists create for a market defined by the apparatus; spectators consume art through its various channels — radio, theater, movie houses, etc. This arbitrary division between producers and consumers maintains power structures in favor of the ruling class: members of society must work (i.e. forego pleasure) in order to enjoy culture later (i.e. not work). Such a structure implicates both rulers and ruled, producer and consumers, for in their passive consumption the ruled uphold the very power structures intended to keep them in their place. Producers and artists, on the other hand, defend the apparatus under misguided pretenses: "Thinking that they are in possession of an apparatus, which in reality controls them, they defend an apparatus over which they no longer have control."[25]

For Brecht, the barrier between ear and voice — between those who must listen and those who get to speak or sing — maintains this status quo. Interestingly, however, it was not the actual broadcast of *Lindbergh's Flight* that demonstrated the overcoming of this barrier, but its staging at the Baden-Baden Chamber Music Festival. The actual broadcast carried the play's final rehearsal to Breslau on the Silesian Radio Hour, followed by pre-recorded broadcasts in Frankfurt am Main (28 July) and Cologne (29 July).[26] While it's true that, in theory, listeners at home could sing along — the play's text had already been published in the journal *Uhu* in April 1929[27] — little evidence suggests they did. Rather, it was the audience of the final rehearsal and first performance that were exposed to the play's re-imagination of the relationship between listener and apparatus. This re-imagination occurred primarily by means of *Lindbergh's Flight's* stage design: "On the left side of the platform," Brecht comments, "was the radio orchestra with its apparatuses and singers; on the right side with the score in front of him was the listener,

25. Quoted in Mueller, "Learning for a New Society," 103.
26. *ibid.*, 40.
27. *Werke* bd. 3, 401-2 (Commentary).

singing the part of Lindbergh, the pedagogical part. He sang this part to the instrumental accompaniment supplied by the radio" ["Auf der linken Seite des Podiums war das Rundfunkorchester mit seinen Apparaten und Sängern, auf der rechten Seite der Hörer aufgestellt, der, eine Partitur vor sich, den Lindberghpart als den pädagogischen durchführte"].[28] The composer, Max Butting, a festival participant, recalls that the festival audience, too, was invited to participate in this spectacle during the play's final rehearsal, albeit with limited success: "It was suggested to the public that they listen to the pieces through loudspeakers set up in neighboring rooms; no one did this, however, so no one could be convinced of the loudspeakers' effect." ["Man schlug allerdings dem Publikum vor, die Stücke in den Nebenräumen aus einem Lautsprecher zu hören; aber das tat niemand, so daß sich auch niemand von der Wirkung aus dem Lautsprecher überzeugen konnte."][29] In this regard, the play's final rehearsal was a more ambitious attempt to present Brecht's vision for the repurposing of the radio. The fictional listener — the hero, *Lindbergh* — would sing his lines apart from the radio orchestra, thereby demonstrating radio sound's ability to penetrate the private sphere; the festival's actual audience, on the other hand, would listen to the performance through telephones and loudspeakers set up in rooms that resemble broadcast studios.[30] Their listening would thus have been staged as part of a scene of production — a kind of active listening, not unlike that of a sound engineer or radio producer.

Not surprisingly, the main problem with Brecht's model of audience participation was the fact that the audience was not willing to participate. Consisting largely of radio specialist and

28. Brecht, "Explanations [about *The Flight of the Lindberghs*]," 40 / "Zu: 'Der Flug der Lindberghs],"in *Werke* 24, 87.
29. Butting, M.: Musikgeschichte, die ich miterlebte. Berlin: 1953. Quoted in *Deutsche Kammermusik Baden-Baden*, 22. Also Quoted in v. Herrman, H-C.: Psychotechnik versus Elektronik: Kunst und Medien beim Baden-Badener Kammermusikfest 1929. In: Andriopoulos, S. und Bernhard J. Dotzler: 1929 Beiträge zur Archäologie der Medien. Suhrkamp. Berlin: 2002), 254-5. Translation mine.
30. Sebastian Klotz, S.: Der Lindberghflug von Brecht, Hindemith, Weill (1929) als Rundfunkproblem." In: Andriopoulos, S. und Bernhard J. Dotzler: 1929 Beiträge zur Archäologie der Medien. Suhrkamp. Berlin: 2002.

a few chance guests, the final rehearsal's audience reacted poorly to the didactic and pedagogical intentions of Brecht's presentation. Perhaps on account of their own status as "specialists," this audience did not feel the need to be taught. Indeed, with regard to a similar play that premiered the next day (July 28th) — later billed as *Das Badener Lehrstück vom Einverständnis* — Butting wrote: "The public took offense and protested; others believed they'd discovered a salon communism, and the majority considered the attempt a failure. Nevertheless, the content of *Lindbergh's Flight* and the *Lehrstück* were one and the same: Brecht" ["Das Kurpublikum, das sich politisch verhöhnt sah, protestierte, andere glaubten einen Salonkommunismus zu entdecken, und die meisten fanden den Versuch im ganzen mißlungen. Aber trotzdem war mit dem Lindbergh-Flug und dem 'Lehrstück' der Inhalt des Gesamtfestes: Brecht]."[31] The case of *Lindbergh's Flight's* final rehearsal was somewhat similar. The audience, as is often the case with overtly political art, were not convinced by the pedagogical intentions of the play; rather, they found its staging forced and performative. In a word, the attempt to make the ear a voice was poorly framed. This problem of framing — of incorporating the audience into the scene — most likely lead Brecht to abandon the final rehearsal's design for a paired-down performance, leaving the separation of Lindbergh and the orchestra in tact but abandoning any hope of actual audience interaction via telephone and loudspeaker.

The staging of *Lindbergh's Flight* also touched on another issue central to the *Gesamtkunstwerk's* ambition to borderlessness: the lack of borders between the arts (the first form of borderlessness). Medium specificity was a major theme at the Baden-Baden Chamber Music Festival, which sought "to create music that was stylistically suitable for the radio" ["eine Musik zu schaffen, die sich stilistisch für den Rundfunk eignet]."[32] On the development of such a

31. *Deutsche Kammermusik Baden-Baden*, 23. Quoted in "Psychotechnik versus Elektronik," 266.
32. *Deutsche Kammermusik Baden-Baden*, 19.

radiophonic art, the producer and radio playwright, Hans Flesch, ambitiously projected in the festival's program that "one could imagine that at some point, from the properties of electrical currents, from their conversion into acoustic waves, something new would be created that concerned tones but not in their current form…" ["[m]an könnte sich denken, daß einmal aus der Eigenart der elektrischen Schwingungen, aus ihrem Umwandlungsprozeß in akustische Wellen etwas Neues geschaffen wird, was wohl mit Tönen, aber nicht mit der Bisherigen Gestaltung zu tun hat…]."[33] Such medium specific radio art, however, did not fully materialize until the 1960s.[34] Instead, the program of all three Baden-Baden Music Festivals tended toward *Lindbergh's Flight's* multimedia combination of text, music, technology, and staging. Previous festivals saw film and music performances from Walter Ruttmann and Hanns Eisler (*Op. 4),* Mozart's *Fantasie in F-Minor* played on a mechanical organ (in the same sitting as George Antheil's "*Ballet Mécanique*"), and chamber operas from Ernst Toch ("Die Prinzessin auf der Erbse"), Henri Hoppentot ("Die Entführung der Europa), and Brecht ("Mahogonny").[35] The festival's aim of a specifically radiophonic art — a music geared for the radio — was thus anything but medium specific.

*Lindbergh's Flight's* final rehearsal took things in an especially multimedia direction with its use of stage projections, documentary film, and photography alongside its attempt to demonstrate radio transmission via telephone and loudspeaker.[36] Despite the final rehearsal's difficulties with telephone and radio, the play's first performance maintained visual projection as a salient feature in its repurposing of the radio. Indeed, it was the visual element that let the

33. Quoted in von Herrman. "Psychotechnik versus Elektronik," 256. Translation mine.
34. Mark E. Cory, "Soundplay: The Polyphonous Tradition of German Radio Art," in *Wireless Imagination*: *Sound, Radio, and the Avant-Garde*, ed. Douglas Kahn and Gregory Whitehead, (Cambridge: Mit Press, 1992), 333.
35. See *Deutsche Kammermusik Baden-Baden 1927-1929*, 9-16.
36. Here I mean the word "demonstrate" in the sense that one demonstrates — i.e. "demos" — technical equipment (as opposed to demonstrating that a proof is valid).

audience know — i.e. framed — what they were hearing. During the performance, the following ideological message appeared on the screen:

> *In obedience to the principles: the state shall be rich, man shall be poor, the state shall be obliged to have many skills, man shall be permitted to have few, where music is concerned the state shall provide whatever requires special apparatuses and skill, but the individual shall provide the exercise. Unchecked feelings aroused by music, special thoughts that may be conceived when listening to music, physical exhaustion that easily arises just from listening to music, these are all distractions from music. To avoid these distractions, the individual participates in the music, thus obeying the principle: doing is better than feeling, by following the printed music with his eyes and adding the passages and voices reserved for him, by singing to himself or in conjunction with others (school class).*
>
> *In Verfolg der Grundsätze: der Staat soll reich sein, der Mensch soll arm sein, der Staat soll verpflichtet sein, vieles zu können, dem Menschen soll es erlaubt sein, weniges zu können, soll der Staat, was die Musik betrifft, alles hervorbringen, was besondere Apparate und besondere Fähigkeiten verlang, aber der einzelne soll eine Übung hervorbringen. Freischweifende Gefühle anläßlich von Musik gedacht werden, Erschöpfung des Körpers, wie sie beim bloßen Anhören von Musik leicht eintritt, sind Ablenkungen von der Musik. Um diese Ablenkungen zu vermeiden, beteiligt sich der einzelne an der Musik, hierin auch dem Grundsatz folgend: tun ist besser als fühlen, indem er die Musik im Buch mit den Augen verfolgt und die für ihn ausgesparten Stellen und Stimmen hinzufügt, indem er sie für sich oder im Verein mit anderen singt (Schulklasse).*[37]

Whether or not this passage appeared all at once or in parts is not clear from the historical record; nor, to my knowledge, is it clear to what extent Brecht had the play's musical score projected. What is certain is that the audience was informed of the play's theory through display, not through participation. The play's attempt at audience participation — the second kind of borderlessness — was enacted through the first type of borderlessness — multimedia form. The latter also provided a further visual element to the play's subject — Lindbergh's transatlantic passage — with the projection of documentary material. There was thus a dual visual element to the radio play: the staging of the radio and the visualization of the play's subject matter.

37. Brecht, "Explanations [about *The Flight of the Lindberghs*]," 39 / "Erläuterungen (Zu 'Der Flug der Lindberghs," *in Werke* 24, 87.

The use of multiple media, of course, raises an important question with regard to the first type of borderlessness. Namely, to what extent does Brecht allow the various media to blend? This question is of central importance to understanding *Lindbergh's Flight's* relationship to the *Gesamtkunstwerk*, for it complicates Brecht's doctrine of the "separation of elements." The doctrine itself does not preclude the use of multiple media; rather, it aims to undermine the *Gesamtkunstwerk's* own blurring of borders and boundaries, both between the arts and between art work and the spectator. In "The Modern Theater is the Epic Theater, Brecht describes the separation of elements as follows:

> When the epic theatre's methods begin to penetrate the opera the first result is a radical *separation of the elements*. The great struggle for supremacy between words, music and production — which always brings up the question 'which is the pretext for what?': is the music the pretext for the events on the stage, or are these the pretext for the music? etc. — can simply be by-passed by radically separating the elements. So long as the expression 'Gesamtkunstwerk' (or 'integrated work of art') means that the integration is a muddle, so long as the arts are supposed to be 'fused' ['*verschmelzt*'] together, the various [artistic] elements will all be equally degraded, and each will act as mere 'feed' for the rest. The process of fusion [*Schmelzprozeß*] extends to the spectator, who gets thrown into the melting pot too and becomes a passive (suffering) part of the total work of art. Witchcraft of this sort must of course be fought against. Whatever is intended to produce hypnosis, is likely to induce sordid intoxication, or creates fog, has got to be given up.
>
> Der Einbruch der Methoden des epischen Theaters in die Oper führt hauptsächlich zu einer radikalen *Trennung der Elemente*. Der große Primatkampf zwischen Wort, Musik und Darstellung (wobei immer die Frage gestellt wird, wer wessen Anlaß sein soll — die Musik der Anlaß des Bühnenvorgangs, oder der Bühnenvorgang der Anlaß der Musik usw.) kann einfach beigelegt werden durch die radikale Trennung der Elemente. Solange 'Gesamtkunstwerk' bedeutet, daß das Gesamte ein Aufwaschen ist, solange also Künste 'verschmelzt' werden sollen, müssen die einzelnen Elemente alle gleichermaßen degradiert werden, indem jedes nur Stichwortbringer für das andere sein kann. Der Schmelzprozeß erfaßt den Zuschauer, der ebenfalls eingeschmolzen wird und einen passiven (leidenden) Teil des Gesamtkunstwerkes darstellt. Solche Magie ist natürlich zu bekämpfen. Alles, was Hypnotisierversuche darstellen soll, unwürdige Räusche erzeugen muß, benebelt, muß aufgegeben werden.[38]

38. Bertolt Brecht, "The Modern Theater is the Epic Theater: Notes to the Opera *Aufstieg und Fall der Stadt Mahagonny*," in *Bertolt Brecht on Theatre*: *The Development of an Aesthetic*, ed. and trans. John Willet (New York: Hill and Wang, 1957), 37-38 / "Zu: 'Aufstieg und Fall der Stadt Mahagonny," in *Werke* 24, 79.

For Brecht, the *Gesamtkunstwerk's* ambition to borderlessness is a kind of mythical metallurgy intent on fusing the spectator with the work of art. The effect of this fusion is hypnosis — the stupefaction of the audience in the presence of a spectacle in which the fluidity of boundaries between words, music, and production creates a world that obliterates the distinction between fiction and reality. In this regard, it is the spectator's reality that is sacrificed for the sake of the living symbol of his relationship to the community — the *Gesamtkunstwerk*. He is one with the work of art at the expense of his own individuality. Brecht considers this state to be a form of passivity which is telling given the "masculine" adventure narrative of *Lindbergh's Flight* (see below).

Brecht proposed the radical separation of elements in response to this fusion, yet such radical separation is not a rejection of the *Gesamtkunstwerk* outright, nor does it reject its communitarian goals. At issue is the relationship between the separation of elements to the play's subject matter — its "dramatic action," to use Wagner's term. The de-hypnotizing promise of the separation of elements recalls the hope that avant-garde filmmakers such as Sergei Eisenstein, Alberto Cavalcanti, and Walter Ruttmann placed in the notion of counterpuntal cinema — the idea that counterpoint between the visual and aural elements of sound film could mitigate the hypnotic effects of narrative cinema.[39] This idea partakes in an aesthetics of interruption according to which disruptive techniques such as montage are used to shock or estrange the viewer, thus bringing them to a state of critical awareness. The projection of the above quote provides one example of this technique: It performs part of its ideology — mitigating "unchecked feelings" — by disrupting the music as well as the proceedings on stage. The

39. Indeed, the three filmmakers exchanged and consolidated views on counterpoint at the September 1929 Congress of Independent Film, just months after Brecht's performance. See Thomas Elsaesser and Malte Hagener, "Walter Ruttmann: 1929," in *1929 Beiträge zur Archäologie der Medien*, eds. Stefan Andriopoulos und Bernhard J. Dotzler (Berlin: Suhrkamp, 2002), 317-349.

viewer's vision and hearing are thus split from one another, bringing them an awareness of their own body and thereby making it difficult to give themselves over completely to the imaginative space of the play.

This idea is not an outright rejection of the *Gesamtkunstwerk*, but rather a repurposing of its own conception of counterpoint. Indeed, it would be naïve to believe that Wagner's understanding of the interaction between the arts is as facile as the word "fusion" suggests. Juliet Koss, for instance, has argued that the notions of autonomy and medium specificity are "central to Wagner's initial formulation of the Gesamtkunstwerk in 1849." The integration of the arts is "predicated on their individual refinement and purification, with the purity of each dependent on the others' proximity…"[40] Wagner formulates his understanding of intermedia counterpoint as follows: "Thus supplementing one another in their changeful dance, the united sister-arts" — poetry, music, and dance — "will show themselves and make good their claim; now all together, now in pairs, and again in solitary splendour, according to the momentary need of the only rule- and purpose-giver, the Dramatic Action" ["So, im wechselvollen Reigen sich ergänzen, werden die vereinigten Schwesterkünste bald gemeinsam, bald zu zweien, bald einzeln, je nach Bedürfniß der einzig Maaß und Absicht gebenden dramatischen Handlung, sich zeigen und geltend machen"].[41] This action is itself an expression "of the collective community," a notion that, as we have seen, carries with it both reactionary and revolutionary associations.

For Wagner, audience participation — that is, the second form of borderlessness — takes place at the level of the dramatic action, specifically its ability to blur the boundaries between viewers and the stage, albeit at the expense of the spectator's own reality. In order for such blurring to occur, the viewer's existence must be denied through the maintenance of the fourth

40. Koss. *Modernism After Wagner*, xii.
41. Wagner, The Art-Work of the Future," 191 / "Das Kunstwerk der Zukunft," 157.

wall. The performer, on the other hand, must expand his own boundaries so as to include all of humanity: “In Drama,” he writes, the performer “broadens out his own particular being, by the portrayal of an individual personality not his own, to a universal human being…”

> He must completely step outside himself, to grasp the inner nature of an alien personality with the completeness which is needful before he can portray it. This he will only attain when he so exhaustively analyses this individual in his contact with and penetration and completion by other individualities, — and therefore also the nature of these other individualities themselves, — when he forms thereof so lively a conception, that he gains a sympathetic feeling of this complementary influence on his own interior being. The perfect artistic Performer is, therefore, the unit Man expanded to the *essence of the Human Species* by the utmost evolution of his own particular nature.
>
> Im Drama erweitert er sein besonderes Wesen durch Darstellung einer individuellen Persönlichkeit, die er nich selbst ist, zum allgemein menschlichen Wesen. Er muß vollständig aus sich herausgehen, um eine ihm fremde Persönlichkeit nach ihrem eigene Wesen so vollständig zu erfassen, als es nöthig ist, um sie darstellen zu können; er gelangt hierzu nur, wenn er dieses eine Individuum in seiner Berührung, Durchdringung und Ergänzung mit anderen und durch andere Individualitäten, also auch das Wesen dieser anderen Individualitäten selbst, so genau erforscht, so lebhaft wahrnimmt, daß es ihm möglich ist, diese Berührung, Durchdringung und Ergänzung an seinem eigenen Wesen sympathetisch inne zu werde; und der vollkommene künstlerische Darsteller ist daher der zum Wesen der Gattung erweiterte einzelne Mensch nach der höchsten Fülle seines eigenen besonderen Wesens.[42]

This expansion of the individual — the movement from particular to universal — recalls the *Gesamtkunstwerk’s* own expansion of borders. It takes place through an absolute identification of the performer with his character to the point where the performer loses himself. In doing so, he gains an understanding of his character as a relational identity that implies the whole. That is to say, the performer is transformed into a living symbol through his identification with humanity. The audience, in turn, identifies with humanity through its identification with the hero.

Brecht would undoubtedly refer to such a transformation as a *Schmelzprozeß*. The figure of Lindbergh, however, suggests a revision — as opposed to outright rejection — of Wagner’s conception of dramatic action, one that favors cool rationality, active audience participation, and

42. Wagner, “The Art-Work of the Future,” 193 / “Das Kunstwerk der Zukunft,” 159.

an aesthetics of disruption instead of audience-denying character identification, passionate performance, and continuous narrative. Interestingly, this takes place through a literalization of Wagnerian drama. If Wagnerian drama implies the audience as symbol, then epic theater strives to embody them in fact. Audience participation — "collective I-singing" — brings the collective into the virtual radio-body of Lindbergh himself. The audience constructs the figure of their own allegorized journey: in theory, Lindbergh is not any one character; he is composed out of many little *Lindberghs*. His voice is not that of an actor, but that of many singers. His limbs and aircraft — to which the actual Lindbergh referred to with the collective 'we' — do not exist outside the airwaves. It is not his personality or the depth of his psychology that expands to encompass all humanity; rather, he is a vessel, facilitated by the radio as bi-directional communications apparatus — in which all humanity can pile in. In this sense, as pointed out earlier, the opening words of the play take on new meaning: "Here is the apparatus / Climb on" [Hier ist der Apparat / Steig ein"][43] is not only an invitation to step into *The Spirit of St. Louis*, it is also an invitation to step into Lindbergh's radio body, fill his lungs with air, and sing.

The transgression of borders between audience and performance that, for Wagner, takes place in the symbolic register is taken literally through collective participation in the role of the allegorized subject of the play — Lindbergh. Of course, as we saw above, in practice it was the staging of the play that pointed toward such a repurposing of the radio. The staged subject of the play, however, differs from its radio subject. The staged subject is the use of the radio that would make a true performance of *Lindbergh's Flight* possible — a bi-directional radio apparatus that allows listeners to sing and potentially be heard by other listeners (hence the telephone and loudspeaker set up). The radio subject, on the other hand, is that which a collective radio audience would sing were such an audience to materialize. In this regard, the play's multimedia

43. Brecht, "Der Flug der Lindberghs, in *Werke* 3, 9. Translation mine.

presentation serves not to heighten the narrative, nor primarily to disrupt it; rather, it demonstrates what Jonathan Sterne calls a "technique of listening"[44] — that is, it demonstrates how the radio apparatus should function as an instrument of communication. Its disruption of the narrative underscores the play's own counterpuntal construction while at the same time informing the viewer of the dispassionate attitude they must take *if they were* to sing the part of Charles Lindbergh. As so happens, no one did.[45]

To this day, there has not been a single performance that uses the radio in the manner *Lindbergh's Flight* prescribes. This fact brings us to the third and final border crossing — a metaphysical borderlessness that merges present day, empirical reality with an envisioned totality, unity, infinity, or absolute. *Lindbergh's Flight* struggles to avoid the ritualistic aspects of this ambition by means of an aesthetics of disruption while nevertheless merging present reality — the technological and social circumstances surrounding the Baden-Baden Chamber Music Festival — with a vision of unity — a world in which distinctions between consumers and

44. Jonathan Sterne, *The Audible Past*: *Cultural Origins of Sound Reproduction*, (Durham: Duke University Press, 2003), ch. 2.

45. As an example of a performance that seems to have successfully combined visual and aural elements with audience participation, we may take a look at *Lindbergh's Flight's* more cynical counterpart, the *Badener Lehrstück vom Einverständnis*, which premiered at the same festival. A prototypical learning play, it tells the story of the downfall of four airmen seeking help from the masses. Outside the wreckage of their craft, the flyers engage in a dialogue with a crowd mediated by a learned chorus and three clowns to answer the question whether "es üblich ist, daß der Mensch dem Menschen hilft." The answer, of course, is no — not so long as the airmen understand the conquering power of technology as independent from the collective. To drive this point home, the stage was complete with a model aircraft whose tip broke through a film screen on which refrains from the play were projected for the audience to sing. The spectacle also caused a scandal with its rather graphic dismemberment of a clown. In contrast to *Lindbergh's Flight*, the *Badener Lehstück's* attempt to stage audience participation was more successful. Despite the discontent that Butting documents, a number of spectators seemed to have participated. In the *Zeitschrift für Musik*, Karl Laux offers the following portrait of how the scene might have looked: "Zu der einfachen Komposition tritt der noch einfacher Refrain. Er wird, wie in der Operette, auf eine Filmleinwand projiziert. Und nun singen wir alle mit: Gerhart Hauptmann und Joseph Haas, Ernst Toch und André Gide, der Erbprinz von Donaushingen und Fräulein Müller aus Rastatt. Wir singen und Hidemith dirigiert diesen merkwürdigen Gesangverein. Der Kampf gegen die Starrheit des Konzertes wird in jeder Weise geführt." Tellingly, this scene of audience participation did not involve the radio; it took place as an old-fashioned sing along. Moreover, all the members seem to have also belonged to the avant-garde — that is, those already familiar with Brecht's pedagogical intentions. Nevertheless, the *Badener Lehrstück* succeeded in bringing multimedia performance in contact with the audience, thus structuring a community through its performance. In this regard, the play managed to at least partially overcome the border the *Lindbergh's Flight* was not capable of bridging.

producers are abolished. This world — as we shall see in greater detail below — is subject to the same tension that characterizes the *Gesamtkunstwerk* — that between the fragmentary "gathered" and the all-encompassing "total." On the one hand, it is a seemingly self-constituting, radically egalitarian unity; on the other hand, it is a unity in which maintaining difference seems difficult if not impossible. To what extent, then, can one maintain difference and avoid the consequence of *Das Volk* inside the radiophonic body of Charles Lindbergh? To answer this question, we should first take a look at the character — or characters — *Lindbergh.*

**III. The Sounds of the Lindberghs**

With its first official publication in 1930, *Lindbergh's Flight* [*Lindberghflug*] became *The Flight of the Lindberghs: A Radio-Learning-Play for Boys and Girls* [*Der Flug der Lindbergh*s: *Ein Radiolehrstück für Knaben und Mädchen*]. As suggested above, the use of the plural emphasizes that the role of "*Lindbergh*s" is to be sung as a collective. Had they existed, the *Lindbergh*s certainly would have been a rag-tag bunch. Young people, many of them children, left-leaning or Marxist, all ready to pile in to the *Spirit of St. Louis* and make their way across airwaves and ocean — or, at the very least, ready to sing to their radios. This repurposing of the dramatic action embodies the allegorized figure of Charles Lindbergh in the body of the collective; his voice becomes their voice. Similar to the *Symphony of Sirens,* the play gives a literal answer to the question, to whom does music belong? It belongs to the people insofar as they participate in the music, not in principle but in fact. This community of singers is not that of the *polis,* but that of the world. Unlike in a Hegelian conception Greek Tragedy, they have not gathered to witness the conflict between two personified moral imperatives but instead to sing an epic narrative — a

tale of a man[46] lost at sea, or more accurately in the air above the sea, struggling *not* to find his way back to the community he left but to forge a new one in which all singers may participate.

Like James Joyce's retelling of *The Odyssey*, *The Flight of the Lindberghs* consolidates an epic narrative into a single day — or 33.5 hours to be exact. In this regard, the play inverts the expanding temporality and contracting spatiality that characterizes Joyce's Dublin. The spatial plane of the work spans from San Diego (where the *Spirt of St. Louis* is constructed) to Paris (where Lindbergh lands); the temporal plane, on the other hand, contracts to forty minutes, depending on the recording. Like Ulysses, Lindbergh serves to demarcate the world. Homer's *Odyssey*, after all, is not just a tale of homecoming; it is also a map of the Ancient Greek land-, sea-, and soundscape, one that seamlessly blends its physical and mythical features. Likewise, *Lindbergh's Flight* blends the physical features of the world with the mythical imaginary of technology. His plane, *The Spirit of St. Louis* (*Geist von St. Louis*) — a blend of metal, flesh (Lindbergh), and spirit — announces the maturation of machine age man, echoing similar announcements from revolutionary avant-gardes in Italy, France, and the Soviet Union. As an *Apparat* into which the listeners enter, the aircraft announces the beginning of a collective journey — one that is not without its dangers. This fact may be difficult to keep in mind in an era of relatively safe trans-oceanic travel. Episodes in *The Flight of the Lindberghs* in which the Lindberghs fly just feet above crashing waves or in which they fly blindly through fog actually occurred. Technology, too, posed its own dangers. As Sebastian Klotz points out, Zeppelin flights were a popular subject of radio broadcasts at the time.[47] One can imagine that their spectacular crashes — like shipwrecks — were part of the techno-mythical imaginary.[48]

46. On the gender bias of the play, see below.
47. Klotz,"Der Lindberghflug von Brecht, Hindemith, Weill (1929) als Rundfunkproblem," 278.
48. For a detailed account see Peter Fritzsche, *A Nation of Fliers*: *German Aviation and the Popular Imagination* (Cambridge: Harvard University Press, 1992).

Similar to the oral epic tradition, the narrative of the Lindberghs' journey would have been accompanied by music — or rather "misuc." Of all his contemporaries, Brecht went furthest in arguing that music ought to serve rational ends. Music should make listeners think; it should not allow them to get carried away with their emotions. Thirty years later, the composer Hanns Eisler wrote that, in this regard, "Brecht's rejection of certain sorts of music was so extreme that he invented another variety of music-making, which he called 'misuc.' Misuc he regarded as a way of music-making basically differing from music, since it is misuc and not music."[49] This playful inversion was based on more than a simple tautology, however, for it turned the prevailing Schopenhauerian musical philosophy — the idea that music gave voice to an ineffable and irrational substrate of human existence — on its head. In place of the ritualistic spectacles that may result from such an idea, misuc serves rational ends by maintaining a casual atmosphere. "Misuc, Eisler writes, "recalls, perhaps, the singing of working women in a back courtyard on Sunday afternoons. Brecht's dislike of music ceremoniously produced in large concert halls by painstaking gentlemen in tails also form a constituent of misuc. In misuc nobody may wear tails and nothing may be ceremonious." Rather, misuc "aims at being a branch of the arts which avoids something frequently produced by symphony concerts and operas — emotional confusion. Brecht was never ready to hand in his brain at the cloakroom. He regarded the use of reason as one of the best recreations."[50] This idea struck Eisler as "heavy blow for us musicians. For in the case of music, where is reason?" "I have friends," he remarked, "who would not go through fire in the cause of reason in music."[51]

Misuc's re-appropriation of music for rational ends aims to undermine the pomposity and hypnotic effects of operatic spectacle by means of an aesthetics of disruption. In this regard,

49. Eisler, "Bertolt Brecht and Music," 94.
50. *Ibid*.
51. *Ibid*.

Brecht's views on jazz may serve as an example. Because of jazz, Brecht wrote that he finally "felt good about music and demanded that the atmosphere of the jazz concert prevail in the theater as well."[52] Unlike high modernists such as Adorno, Brecht did not dislike jazz on account of its echoing of commodity culture through repetitive structure and syncopated rhythms; nor did he appreciate jazz, like Weill did, because it struck him as "part of nature — as the healthiest, most powerful form of artistic expression that, on account of it folk origins, could become an international sort of folk music with far-reaching effects" ["ein Stück Natur, als gesundeste, kraftvollste Kunstäußerung, die durch ihren volkstümlichen Ursprung sofort zu einer internationalen Volksmusik von breitester Auswirkung wurde."][53] Rather, Brecht liked jazz for a reason most jazz aficionados would hate: its function as background music. Brecht understood background music as another mode of listening that breaks the spell of Wagnerian opera. Jazz did not require rapt attention, nor did it require listeners to forget their bodies. In this regard, Brecht's conception of jazz resembles Eric Satie's approach to music. Darius Milhaud, for instance, recalls a moment when Satie noticed the audience growing silent in the presence of his music; at this he began to stalk through the crowd shouting, "[g]o on talking! Walk about! Don't Listen!"[54] This practice of "not listening" — or, more accurately, listening while not listening — is a fundamental characteristic of misuc.

Misuc helps illustrate the sonic component of Brecht's disruptive aesthetic: it is an attempt to maintain the distance between audience and work of art — that is, to mitigate the blurring of boundaries associated with the Wagnerian spectacle. This distance is to be maintained in *The Flight of the Lindberghs* even as the audience participates in the work of art, thus revising

52. Stegmann, "Brecht contra Wagner: The Evolution of the Epic Music Theater," 239. Stegmann references Brecht, *Werke* 15, 69.
53. Kurt Weill, "Notiz zum Jazz," in *Kurt Weill, Musik und musikalisches Theater*: *Gesammelte Schriften*, eds. Stephen Hinton and Jürgen Schebera (Mainz: Schott, 2000), 62. Translation mine.
54. Darius Milhaud, *Notes without Music*. Quoted in Steggmann, 243.

the *Gesamtkunstwerk's* blurring of boundaries in a literal direction. As such, misuc serves the same disruptive function as stage projections at *Lindbergh's Flight's* first performance. With regard to the sonic features of *Lindbergh's Flight* and *The Flight of the Lindberghs*, misuc manifests itself in several respects: first, in the informal, seemingly non-ritualistic mode of the performance; second, in the mixing of musical styles with noise and speech; and third, in the fast alteration of tempo with radical shifts in point of view (counterpuntal montage). These rhythms, sounds, and modes of listening accompany the *Lindberghs* on their journey across borders; more accurately, they simultaneously constitute and dissolve the boundaries that the *Lindberghs* cross in their transformation from ear to voice. In analyzing them, I will rely on Paul Hindemith's score for the first performance.[55] There are slight variations between scores, but what follows applies equally *Lindbergh's Flight* and *The Flight of the Lindberghs* unless it concerns the proceedings of the Baden-Baden Music Festival.

The Music Festival, however, is a good place to begin our journey through *Lindbergh's Flight's* soundscape, for the mode of listening that this festival demonstrates repurposes, in several respects, the Wagnerian mode of listening. Namely, as a chamber music festival, the performance space sought to descale the grandeur of the Wagnerian spectacle while simultaneously opening music up to newer media. Formerly the "Donaueschinger Kammermusik-Aufführungen für zeitgenössische Tonkunst" — founded by Heinrich Burkard, Joseph Haas and Paul Hindemith in 1921 — the music festival's 1927 introduction makes precisely this point:

> Ten years ago Baden-Baden made itself the talk of the town through a sensational performance of Richard Wagner's *Ring des Nibelungen* under the baton of Wilhelm Furtwängler in the newly-opened great hall of the gaming-casino [no name mentioned]. Now in 1927 the search is on for an all-media-encompassing chamber art that over the next three summers Baden-Baden will transform into a wide-ranging field of

55. Paul Hindemith, *Sämtliche Werke,* ed Rudolf Stephan (Mainz: B. Schott's Söhne, 1982), Vol 1/6, 105.

> experimentation. This art aims at clarity, pithiness, and transparency while avoiding all pomposity, superfluity, and flamboyancy.
>
> Zehn Jahre zuvor hatte Baden-Baden durch eine als sensationell empfundene Gesamtaufführung von Richard Wagner 'Ring des Nibelungen' im neu eröffneten großen Bühnensaal des Spielcasinos unter der Leitung des jungen Wilhelm Furtwängler von sich reden gemacht. Jetzt, 1927, war es die Suche nach einer alle Medien umfassenden neuen 'Kammer'-Kunst — verstanden als die Absicht zu Klarheit, Prägnanz, Durchschaubarkeit und als eine Absage an alles Pompöse, Überflüssige und Überladen —, die Baden-Baden drei Sommer lang zu einem Experimentierfeld von weiter Ausstrahlung werden ließ.[56]

In other words, the Baden-Baden Music Festival had two goals: First, to search for an all-encompassing chamber art ("alle Medien umfassenden neuen 'Kammer'-Kunst") that nevertheless maintains clarity between media; second, to do away with the superfluity and pomposity that one may rightly associate with Wagnerian spectacle. This goal places it in opposition to an earlier performance of Wagner's *Ring des Nibelungen* (at a casino of all places) that had made Baden-Baden the talk of the musical world.

That the music festival's goals resemble those of "misuc" — a sonic art form dedicated to clarity and lack of pomposity — should not come as a surprise. Anti-Wagnerism was part of the spirit of the avant-garde. Nevertheless, it is important to note that these goals do not constitute and outright rejection of Wagner's ideas. The notion of an "alle Medien umfassenden neuen 'Kammer'-Kunst" may be glossed as a miniature or chamber *Gesamtkunstwerk*. Oxymoronic as the idea might sound, this is precisely what the Baden-Baden music festival sought through its chamber operas, makeshift stages, experimental music and film screenings, sing alongs, and generally open atmosphere. In this regard, we may recall *Lindbergh's Flight's* emphasis on audience participation; its final rehearsal's attempt to get audience members to walk about and experiment with various "detached" modes of listening through telephone and loudspeaker.

56. Willibald Hilf. *Deutsche Kammermusik Baden-Baden 1927-1929,* 4. Translation mine.

Though the attempt failed, it was nonetheless in line with Baden-Baden's and Brecht's "misucal" goals.

With *The Flight of the Lindberghs* the means of achieving misuc shift from the stage to the radio and the listener's voice. Recall, for instance, Brecht's claim (above) that "unchecked feelings aroused by music…are a distraction from music."[57] Such a distraction does not qualify as misuc, for it does not prevent the audience from over-identifying with the hero; or, to put in anti-Wagnerian terms, it does not stop him from stepping "outside himself" and grasping "the inner nature of an alien personality."[58] By contrast, the *Lindberghs* "speak and sing the text mechanically; they pause at the end of each line of verse; they read along mechanically as they listen to the text."[59] This seemingly lifeless image of rote learning carries a more special significance when we consider that the listeners constitute Lindbergh and his plane, *The Spirit of St. Louis*, as an apparatus. The apparatus is nothing without the listeners; they are its mechanical pieces. Leaving aside the totalitarian implications of this idea for the next section, it is important that we recognize how it radically reconceives the notion of the radio voice. First and foremost, the radio voice typically silences the listener; the *Lindberghs'* voice, on the other hand fills and constitutes the radio. Second, the radio voice strives to engage the public through the cult of its own vocal personality; the Lindberghs' voice allows the audience's thoughts to wander much like a crowd milling about at a jazz show. Third, the radio voice creates a homogeneous space. This space is apparent in a typical radio play in which the actor's voice defines the narrative space of adventure: it takes us from point A on the journey to point B, suggests emotions, and often times describes what we're hearing. On the other hand, despite their mechanization, the space the *Lindberghs'* voices create is not homogenous, for it is always rooted in a physical context —

57. Brecht, "Explanations [about *The Flight of the Lindberghs*]," 39.
58. Wagner, "Art-work of the Future," 193.
59. Brecht, "Explanations [about *The Flight of the Lindberghs*]," 39.

their bodies. These, according to the play's prescriptions, may sing alone or in unison. In doing so, they can explore the spaces of Lindbergh's Flight without abandoning their own.

Whether or not mechanization mitigates the apparently ritualistic features of this performance is a point we shall explore in the next section. For now, it is important to note how the *Lindberghs'* voices interact with the rest of the sounds emanating from the radio, score, and text. Indeed, in accordance with Brecht's disruptive aesthetic, the mechanized nature of the *Lindberghs'* voices serve as a counterpoint to an otherwise vivacious score. Here it is important to recall that the score itself manifests a conflict between three unique visions of composition: Brecht's, Weill's and, to a lesser extent, Hindemith's. In contrast to Brecht's ideas on detached singing, Weill understood the play more in terms of the classical German *Hörspiel*, which aims "to draw a picture of people's movements by purely musical means" ["[mit] rein musikalischen Mitteln das Bild und die Bewegung des Menschen aufzuzeigen"].[60] In this regard, according to Sebastian Klotz, *Lindbergh's Flight* "also showcases a hidden controversy between a poet, for whom effusive music was always suspect, and a composer who did not conceive of the relationship between music and text in categories of dominance and submission" ["auch Schauplatz einer unterschwelligen Kontroverse zwischen einem Dichter, dem eine gefühlvolle Musik im Grunde suspekt war, und einem Komponisten, der das Verhältnis von Musik und Text nicht in Kategorien der Vorherrschaft reflektierte"].[61] Not conceiving the relationship between music and text as one of dominance and submission, Weill did not subscribe to Brecht's doctrine of the separation of elements. As Klotz notes, Hindemith generally supported Weill's view, but it was ultimately Brecht's vision that won out.

60. Quoted in Klotz," Der Lindberghflug von Brecht, Hindemith, Weill (1929) als Rundfunkproblem," 275.
61. *Ibid*., 276.

Tensions between Weill, Hindemith, and Brecht in fact suggested themselves in Baden-Baden. Max Butting recalls that, during the performance, Hindemith and Weill retreated behind Brecht, ostensibly on account of their embarrassment.[62] Despite these difficulties, however, I suggest that the conflict between Weill, Hindemith, and Brecht served Brecht's counterpuntal aims. The score is a mishmash of formal and informal styles, musical devices, sound effects, and voices. To start, we might consider its use of a typically Wagnerian device — the leitmotif. The *Grove Encyclopedia of Music* defines the leitmotif as "a theme, or other coherent musical idea, clearly defined so as to retain its identity if modified on subsequent appearances, whose purpose is to represent or symbolize a person, object, place, idea, state of mind, supernatural force or any other ingredient in a dramatic work."[63] Weill and Hindemith's score is filled with such musical figures, many of which illustrate ideas in the text through tone painting. As a simple example, we may once again take the play's opening lines: "Here is the Apparatus / Climb on" ["Hier ist der Apparat / Steig Ein"]. These lines are accompanied by a musical figure that illustrates the action of "climbing on" the plane — a whole step from E to F# for the sopranos in conjunction with a half step (B to A) and whole step (E to C) for the altos and tenors respectively.[64] The figure contains a tritone (C-F#),[65] referred to as the Devil's interval on account of its dissonant and unstable character. As a musical gesture, it is a way of saying that the journey to come will be a difficult one, filled with dissonance and tension. Wagner's *Siegfried,* for instance, opens its second act with the timpani tuned a tritone apart, thus connoting a brooding atmosphere.

62. Butting, *Musikgeschichte, die ich miterlebte* (Berlin, 1953). Quoted in *Deutsche Kammermusik Baden-Baden,* 23.
63. "Leitmotif," *Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/grove/music/16360?q=leitmotif&search=quick&pos=1&_start=1#firsthit
64. In broadcast versions of the play, these parts are sung by the radio chorus (as opposed to a chorus of active participants).
65. A 'tritone' interval consists of three whole steps — hence, tri-tone. Hindemith gives an extensive analysis of the interval from both a mathematical and expressive perspective in *The Craft of Musical Composition,* trans. Otto Ortmann (New York: Associated Music Publishers, 1941).

*Lindbergh's Flight's* opening tritone ("Steig / Ein") symbolizes a tension at the heart of the apparatus, not just *The Spirit of St. Louis,* but the radio as well. Indeed, given our interpretation, the tritone hints at the central tension of the *Gesamtkunstwerk* insofar as the play struggles to reconcile its mechanical conception of the whole with the demands of misuc. The latter appears in the play's compositional style. Despite its dissonances, the score is very tuneful; it lends itself easily to humming and singing, recalling, perhaps, the same "singing of working women in a back courtyard on Sunday afternoons" that Eisler refers to with regard to misuc. To be fair, however, in both the text and subsequent radio performances, these voices are almost all masculine. (An exception is the chorus singing "Steig / Ein," which used female vocalists for the soprano and alto parts). The play, like the radio itself, is gender biased. Lindbergh's obsession with tools — "2 electric lamps, 1 roll of rope / 1 roll of tape / 1 hunting knife /…" ["2 elektrische Lampen / 1 Rolle Seil / 1 Rolle Bindfaden / 1 Jagdmesser…"][66] — suggests a male adventure fantasy, intended more for the instruction of boys (Knaben) than girls (Mädchen). This fact reflects the radio's own technical preference for voices in the lower-middle of the frequency spectrum — i.e. male voices.[67] Accordingly, the personified voices of fog, snow, sleep, and various other natural elements are all male in subsequent broadcasts of *The Flight of the Lindberghs,* despite the fact that they play essentially the same role as the Sirens in Homer's Odyssey.

At the same time, the radio play is not entirely populated by tones and voices, it also has roles for noises (*Geräusche*), particularly those of "Water, Motor, [and] a great crowd"

66. Brecht, "Der Flug der Lindberghs" in *Werke* 3, 10. Translation mine.
67. As Klotz notes, "Neben der patriotischen Dimension…kam hier auch der Technikgebrauch als Männlichkeitsphantasie zur Geltung, die wohl nur durch Männer auszuleben und nur den Knaben pädagogisch zu vermitteln war. Eine weibliche Rolle ist im ganzen *Lindberghflug* nicht auszumachen. Rundfunktechniker empfahlen den Verzicht auf den Einsatz hoher Frauenstimmen, die klanglich äußerst benachteiligt waren" (Sebastian Klotz, "Der Lindberghflug von Brecht, Hindemith, Weill (1929) als Rundfunkproblem," 277).

["Wasser, Motor, [and] Eine große Masse"].[68] These rolls are part of *Lindbergh's Flights* transgression of borders. In this regard, the Lindberghs conversation with their motor is especially interesting. Rather than personify the motor with voice, Brecht, Hindemith, and Weill used recorded noise (*Geräuschschallplatte*) to represent the motor, furthering the impression that Lindbergh and *The Spirit of St. Louis* were a single unity. There conversation appears as follows:

THE MOTOR RUNS (RADIO)
THE LINDBERGHS
Now it is not far. Now
We must pull ourselves together
Us two.
Do you have enough oil?
Do you think you have enough gas?
Are you cool enough?
How's it going with you?
THE MOTOR RUNS (RADIO)

DER MOTOR LÄUFT (RADIO)
DIE LINDBERGHS
Jetzt ist es nich mehr weit. Jetzt
Müssen wir uns noch zusammennehmen
Wir zwei.
Hast du genug Öl?
Meinst du, das Benzin reicht dir aus?
Hast du kühl genug?
Geht es dir gut?
DER MOTOR LÄUFT[69]

Hindemith's score marks the noise of the engine with a tremolo figure and the instructions: "The motor runs calm and evenly" ["Motor läuft ruhig und gleichmäßig"].[70] This reply, however, should not be understood as uninterpretable silence. On the contrary, it harmonizes with the Linberghs' goal of overcoming the border between human and machine. In episode eight — titled "Ideologie" — the Lindberghs chant: "Let us fight nature / Until we ourselves have become natural. / We and our technology are not yet natural / We and our technology / are

68. Brecht, "Der Flug der Lindberghs," in *Werke* 3, 8. Translation mine.
69. Brecht, "Der Flug der Lindbeghs," in *Werke* 3, 20. Translation mine.
70. Paul Hindemith, *Szenische Versuch* I/6, 190.

primitive" ["Laßt uns bekämpfen die Natur / Bis wir selber natürlich geworden sind. / Wir und unsere Technik sind noch nicht natürlich / Wir und unsere Technik / Sind Primitiv"].[71] On the Lindberghs' view, humanity is not "natural" but rather occupies a place between nature and technology. As can be seen from the quote, in allying themselves with their technology they do not identify with it as one and the same thing; rather, they place it in a subservient position (*unsere* Technik). This fact brings a new insight into Brecht's emphasis on "mechanized singing." It is neither an instance of rote learning, nor (entirely) a distancing effect; rather, it is an attempt to meet the motor's voice halfway.

By contrast, the noise of the water is heard as a threat — and rightly so, since it signals that the plane is about to crash into the ocean. In response to the sound of "Wassergeräusch," the Lindberghs scream, "I must / come up! / This Wind / Presses so" ["Ich muß / Hochkommen! Dieser Wind / Drückt so"]; and when the danger passes, "My God! It almost / Pulled us in" ["Mein Gott! Beinahe / Hätte es uns aber gefaßt"].[72] The fear of being swallowed up by water points out the danger of noise. On the one hand, noise's ability to overcome borders — its ability to blur the boundaries between music, sound, and speech — brings the Lindberghs closer to their engine. On the other hand, in a different context, its very lack of boundaries threatens to swallow them whole. The difference between the two contexts provides an interesting parallel to Brecht's own views on the *Gesamtkunstwerk*. For it is as a seemingly natural work of art that the *Gesamtkunstwerk's* blurring of boundaries appears as a threat. As a mechanical work of art — one that brings humans and machines closer together — its ambition to borderless deserves Brecht's praise. Qua mechanical the character of its totality changes to reflect Brecht's views on

71. Brecht, "Der Flug der Lindberghs," in *Werke* 3, 16.
72. *ibid.*, 18

the separation of elements: a machine, after all, is a totality whose parts are nonetheless clear and distinct.

The noise of a crowd ("Geräusch einer Grossen Masse") greets *Lindbergh* in Paris. Unlike the noise of water and engine, its role is more similar to that of the personified voices of newspapers and countries. Lindbergh's flight is punctuated, montage-like, by reports from America, New York, and Europe that doubt, praise, hope, or otherwise report on his journey. Many of their lines are taken, like documentary footage, from actual radio broadcasts. As chatter, they are part of *Lindbergh's* spectrum of machine, natural, and human noises. They serve to pace the narrative through alterations in perspective, offering a view of the world in contrast to the view over Lindbergh's shoulder, as well as changes in rhythm, voice, and diction.[73] At the same time, due perhaps to Weill and Hindemith's influence, their montage-like alteration is contained within a whole that, as we noted earlier, is remarkably tuneful. Despite the character some scholars may give them, these changes in perspective and voice are not as radical as those envisioned by filmmakers such as Eisenstein, Vertov, or Vigo. This foregoing of radical montage, however, follows the principles of misuc whose lack of formality may also be understood as a scaling back of formal innovation. As innovative as the play is, it never sacrifices tunefulness for dissonance or straightforward narrative for montage.

Hindemith, Weill, and Brecht's score is truly a child of Wagnerian art. Its use of leitmotifs and tone painting would soon come to dominate Hollywood cinema, as would its use of noise and montage. That said, the play repurposes these elements in the interest of misuc. Along with the potential of un-included elements such a mechanized singing, these come together to offer a complex, often contradictory picture of the radio apparatus. A tool for unification through disruption (the separation of elements), Brecht's notion of the radio has a

73. Klotz," Der Lindberghflug von Brecht, Hindemith, Weill (1929) als Rundfunkproblem," 278.

tension running through it that resembles the *Gesamtkunstwerk*'s own defining opposition. It manifests itself strikingly in the opening musical figure — the tritone — as well as in the tension between natural and mechanical conceptions of art and society. We might ask, then, what lies behind this conception of the apparatus? What, for Brecht, constitutes this mixture of technology, art, and culture? Does *Lindbergh's Flight*, in accordance with its revolutionary aesthetic, actually reveal the apparatus? Or does it rather leave parts of it behind the scenes?

## IV Staging the Apparatus

Since Wagner, it has generally been the custom for an opera orchestra to be placed outside the spectator's line of sight. The orchestra pit was a crucial feature of Gottfried Semper's design for the Bayreuth Festival Theater. The design created the impression we are familiar with in movie theaters today — the feeling that music is part of the action on screen. The architecture of the stage was as important for Wagnerian opera as his three sister arts — poetry, music, and dance. As Juliet Koss points out, "[t]he ideal construction of the stage and auditorium would allow architecture to remain silently present during the performance, fostering the most direct communication between the Gesamtkunstwerk and its audience."[74] We might think of this silent presence as characteristic of the Wagnerian apparatus. By contrast, Brecht did his best to place the apparatus on stage, in plain sight of everyone. Radio, orchestra, and microphone all share the stage at *Lindbergh's Flight's* final rehearsal and first performance. This feature has often been understood in terms of the politics and poetics of "laying bare the apparatus" — the idea that an analysis of the technical and social underpinnings of the apparatus can bring viewers to a higher plane of critical consciousness.

74. Koss, *Modernism after Wagner*, 25.

The phrase — laying bare the apparatus — has always struck me as somewhat fraught, for intentionally or unintentionally it connotes a given state of affairs of social and technological production that are being exposed. In its place, I prefer to use the phrase "staging the apparatus." "Staging" adds a normative condition to all references of laying bare: the idea that things may not necessarily be this way now, but that they ought to be. In western capitalist societies, we are familiar with "staging the apparatus" in the form of advertisements for audio equipment. As Jonathan Sterne documents in *The Audible Past,* such advertisements demonstrate the "correct" use of the technology they are advertising, along with the oftentimes utopian benefits it affords.[75] The "techniques of listening"[76] advertised offer insight not only into the listening practices of the day, but the imagined worlds and aspirations of the past. It is in this regard that Brecht's *Lindbergh's Flight* is also a demonstration, or staging, of a listening technique, one that promises to overturn the social relations of oppression inherent in antiquated forms of listening such as opera. As with advertisement, however, I suggest that *Lindbergh's Flight* reveals as much as it conceals. Its staging of the apparatus, as I hope to show, covers up radio's wired roots.

That radio is a wireless apparatus is not an analytic truth; nor is it the case that the possibilities it affords for seamless global communication are wireless ones. This fact suggests a revision of *Lindbergh's Flight's* participation in the third form of borderlessness — the merger of a "present, empirical reality with a nonpresent, or not-yet-present, envisioned totality, unity, infinity, or absolute…"[77] Brecht, of course, was not alone in envisioning the bi-directional possibilities of the radio. His thinking was inspired by ideas from the Soviet Union, received by way of reports from figures like Walter Benjamin, Asja Lacis, Irwin Piscator, and others.[78] The

75. Sterne, *The Audible Past*: *Cultural Origins of Sound Reproduction,* ch. 2.
76. *Ibid*.
77. Finger and Follet, "Dynamiting the *Gesamtkunstwerk,*" 3-4 (above).
78. *Ibid*.

use of radio in the Soviet Union is interesting for two reasons: First, because unlike in Germany people in the Soviet Union often listened to the radio as a collective; second because this kind of listening was often facilitated by wired (not wireless) radio sets. As Stephen Lovell documents, "[f]rom 1925 onward, the Soviet state at various levels began to set up thousands of radio diffusion exchanges, which received programs from Moscow or one of the other broadcasting centers and then sent them over a system of wires to dozens, hundreds, or even thousands of networked speakers."[79] The system was both wireless and wired with broadcasts received by hubs and channeled out to individual sets. The metaphoric possibilities that this wired model of communication afforded manifested themselves in the work of the Soviet avant-garde and were part of a mutually conditioned discourse between new communications technology, neuroscience, and pedagogy.[80]

Writers of the Soviet avant-garde actively explored the possibility of bi-directional communication from a variety of angles, both utopian and dystopian. In his novel, *The Foundation Pit*, for instance, Andrei Platonov pokes fun at the pathos of bi-directional communication through a scene of collective listening in which one of the characters — the digger, Safronov — is so moved by the radio's announcement requiring all workers to "cut off the tails and manes of horses" that he regrets "only that he was unable to talk back into the loudspeakers, so that they would know in there about his sense of activism and readiness to clip horses, and about happiness."[81] When the radio falls silent, it is none other than Safronov that continues the announcement, acting "instead of the radio"[82] — that is, as if he were a

79. Stephen Lovell, "How Russia Learned to Listen: Radio and the Making of Soviet Culture," in *Kritika: Explorations in Russian and Eurasian History*, Vol. 12, No. 3 (2011), 600.
80. Slava Gerovitch, "Love-Hate for Man-Machine Metaphors in Soviet Physiology: From Pavlov to 'Physiological Cybernetics,'" in *Science in Context* 15 2 (2002), 343.
81. Andrei Platonov, *The Foundation Pit*, trans. Robert & Elizabeth Chandler and Olga Meerson (New York: New York Review of Books, 2009), 50-51
82. *Ibid.*

loudspeaker. Vladimir Mayakovsky's play, *The Bed Bug*, on the other hand, uses a similar bi-directional set up to envision a parliament of the future as follows: "Fifty years later. An immense amphitheater for conferences. Instead of human voters, radio loudspeakers equipped with arms like directional signals on an automobile…In the center of the hall a dais with a microphone, flanked by control panels and switches."[83] This parliament of humanoid loudspeakers representing delegates from all over the world comes together to decide whether to melt a Soviet citizen who was frozen in 1929. Similarly, in his 1926 play, *I Want a Baby*, Sergei Tretyakov strings together a surreal series of episodes in which a woman raises her child with the help of a collective. Their decisions are wired in via the radio.

All three examples suggest that modernist utopia — whether functioning or malfunctioning — is a wired state in which the parts and the whole freely communicate and anticipate one another across borders. The notion of wired-ness connotes a freedom from interference — the opportunity for stimulus and response to build upon one another in the creation of an electronic organism. Such an idea was popular in Soviet neurology at the time, though its model was not so much that of the radio as the telephone switchboard, the latter being the basis for Ivan Pavlov's theory of reflexology. The founder of modern neuroscience, Pavlov used this metaphor as a way to explain the "distinction between conditional and unconditional reflexes:"[84] He associated unconditional reflexes, such as salivating when a piece of food is offered, as a "set of direct, permanent telephone lines," while comparing conditional reflexes, such as salivating "in response to the ringing of a bell" with "flexible temporary connections between telephone users through a switchboard."[85]

83. Vladimir Mayakovsky, "The Bedbug," in *The Bedbug and Selected Poetry*, trans Max Hayward and George Reavey (Bloomington: Indiana University Press, 1960), 271.
84. Slava Gerovitch. "Love-Hate for Man-Machine Metaphors in Soviet Physiology," 343.
85. *Ibid*.

A similar idea is present in the theory of the lesser known but equally important neurologist, Vladimir Bechterev, who influenced the pedagogical ideas of a number of avant-garde figures including Dziga Vertov, Vsevolod Meyerhold, as well as Brecht himself. In his *General Principles of Human Reflexology*, Bechterev defines reflexology as the "strictly objective study, in their entirety, of the correlations of the human being with the environment through the mediation of man's facial expressions, his gestures, the content and form of his speech, his behaviour, and, in general, everything by which he manifests himself in the environment."[86] As Anson Rabinbach points out, this idea relies on the metaphor of the human body as "thermodynamic machine," a mechanism by which psychic and physical energy are exchanged.[87] Such a conception influenced Brecht's own theory of the learning play. In a fragment entitled "On the Theory of the Learning Play" ["Zur Theorie des Lehrstücks"], Brecht writes " just as <particular> moods and trains of thought lead to attitudes and gestures, so do attitudes and gestures lead to moods and trains of thought" ["so wie <bestimmte> stimmungen und gedankenreihen zu haltungen und gesten führen, führen auch haltungen und gesten zu stimmungen und gedankenreihein"].[88] This idea sheds light on the role of mechanized singing in *Lindbergh's Flight*. Such singing is an attitude (*Haltung*) or gesture (*Geste*) that is supposed to lead to particular kinds of feelings and thoughts — namely, "the state shall be rich, man shall be poor," etc. Unlike Bechterev, however, Brecht does not consider the possibility that the same stimulus may lead to different reactions in different subjects.[89]

86. Vladimir Bechterev, *General Principle of Human Reflexology* (Jarrolds: London,1933), 81. Quoted in Roswitha Mueller, "Learning for a New Society: the *Lehrstück*," 115.
87. Anson Rabinbach, *The Human Motor*: *Energy, Fatigue, and the Origins of Modernity* (Berkeley: University of California Press, 1992), 61.
88. Bertolt Brecht, "Zur Theorie des Lehrstücks," in *Brechts Modell der Lehrstücke*: *Zuegnisse, Dizkussion, Erfahrungen*, ed. Reiner Steinweg, (…) 141. Lower case in the original. Translation mine.
89. Bechterv, *General Principles of Human Reflexology*, 84.

The idea that gestures influence thoughts and vice versa reverberated deeply throughout avant-garde culture. It is present in Brecht's conception of *Gestus* (gesture), Meyerhold's notion of a biomechanical theater of movement, and Eisenstein's ideas on montage. Similar to Pavlov, Bechterev's model is dependent on the man-machine metaphor of the human being as wired organism: certain connections (reflexes) are hard wired; others may be re-channeled (conditioned reflexes). This metaphor, however, is bi-directional. As Gerovitch points out, man-machine metaphors "do not simply transfer meaning from one term to another;" rather, they are the site of an exchange of meanings between the two terms. In other word, man-machine metaphors are rather mutually constitutive: if they mechanize humans, they also humanize machines. Hence, if a brain resembles a network of telephone lines, then a network of telephone lines may also resemble a brain — or, in Brecht's case, a network of radio receivers. On this account, the notion of audience participation — of the ear becoming voice — would resemble the tuning of signal and receiver; the figure of Lindbergh — qua apparatus — would resemble a great, mechanized consciousness consisting of thousands of voices.

In "The Radio as a Communications Apparatus," Brecht writes that

> [t]he radio could be the finest possible communications apparatus in public life, a vast system of channels [Kanalsystem]. That is, it could be so, if it understood how to receive as well as to transmit, how to let the listener speak as well as hear, how to bring him into a network [Beziehung] instead of isolating him"
>
> Der Rundfunk ist aus einem Distributionsapparat in einen Kommunikationsapparat zu verwandeln. Der Rundfunk wäre der denkbar großartigste Kommunikationsapparat des öffentlichen Lebens, ein ungeheures Kanalsystem, d.h., er wäre es, wenn er es verstünde, nicht nur auszusenden, sondern auch zu empfangen, also den Zuhörer nicht nur hören, sondern auch sprechen zu machen und ihn nicht zu isolieren, sondern ihn in Beziehung zu setzen.[90]

90. Brecht, "The Radio as a Communications Apparatus," in *Bertolt Brecht on Film and Radio*, 42 / "Der Rundfunk als Kommunikationsapparat," in *Werke* 21, 552.

Despite the fact that Brecht uses the word *Beziehung* (relationship) and not the more loaded *Netzwerk* or *Verbund*, the idea here still constitutes a wired model for the dissemination of ideology, for "*making* the listener speak" ["sprechen zu machen"]. Far from an anticipation of the "democratic" market of talk radio, this model hopes to create a unified radio consciousness. Here we might reconsider the lines from *The Flight of the Lindberghs*: "Let us fight nature / Until we are selves have become natural. / We and our technology are not yet natural / We and our technology / are primitive" ["Laßt uns Bekämpfen die Natur / Bis wir selber natürlich geworden sind. / Wir und unsere Technik sind noch nicht natürlich / Wir und unsere Technik / Sind primitiv"].[91] It is only by fighting nature with technology that human beings can become at once more natural and less primitive. Such a result is only possible if the borders between nature, humanity, and technology are blurred. The unified consciousness this idea entails thus returns full circle to the idea of the *Gesamtkunstwerk* as the natural expression of a universal human will, only in this case its "naturalness" is mediated by a technologically empowered culture.

The totalitarian implications of this idea are obvious enough. We would do well to remember, however, that this is only one aspect of Brecht's political and aesthetic views. There is no unified Brechtian theory of politics, aesthetics, or even theater, so it is easy to refute Brecht with Brecht, bringing to mind all his various radically democratic ideas, ideals, and devices. In this case, we could once again return to the "separation of elements" and Brecht's aesthetics of disruption to see if there isn't something we overlooked that might serve to dull the totalitarian edge of this wired conception of the apparatus. Such an investigation would be a difficult one, however, for Bechterev's model of the brain does not preclude the use of an aesthetics of disruption for the purposes of hypnosis and *Verschmelzung*. A clear example comes from our contemporary culture. Advertisement, for instance, is based on an aesthetics of disruption: it

91. Bertolt Brecht, "Der Flug der Lindberghs, in *Werke* 3, 16.

interrupts our programming, but in a manner that forces us to associate it with what we've just been watching. Moreover, as we saw above, *Lindbergh's Flight's* multi-media aesthetic is disruptive, but not so disruptive as to forcefully shock the viewer into critical consciousness.

If we are to find a point of resistance to this totalitarian model, I suggest that we re-examine how Bechterev's conception of reflexology may be applied for pedagogical purposes. We need look no further than the pedagogical investigations of Brecht's one time assistant, Asja Lacis. Lacis was born in Latvia and spent her student years at Bechterev's Neurological Institute in St. Petersburg. Before and immediately after the revolution, the institute was a hub for avant-garde intellectual life. The filmmaker, Dziga Vertov, had been a student at the Institute shortly before Lacis; poets such as Vladimir Mayakovsky held readings and their work was actively discussed. Known primarily as the "*femme fatale* responsible for seducing [Walter Benjamin] with Marxist materialism away from his Jewish heritage and faithful wife,"[92] Lacis was in fact one of Benjamin and Brecht's key interlocutors, not to mention an astute interpreter of their ideas. In 1924, she worked as Brecht's assistant, informing him of major developments in Soviet avant-garde theater, and of the work of major biomechanical pioneers such as Vertov, Meyerhold, Sergei Eisenstein, as well as the Taylorist poet, Alexsei Gastev. It is only recently, however, that Lacis has been given some of her due as a thinker in her own right.

In her short memoir, *Revolutionär im Beruf,* Lacis documents how she used ideas from her neurological training in the development of a pedagogical program for a Soviet children's theater. "The goal of communist education," she wrote, "is to set free productivity on the basis of a high level of general education, and to do so for specialized and nonspecialized talents alike. My proletarian origins, as well as my studies with Professor Bechterev in St. Petersburg led me to this principle. In Orel I attempted to apply it to a proletarian-aesthetic children's education"

92. Susan Ingram, "The Writings of Asja Lacis," *New German Critique* 86 (Spring/Summer, 2002), 159.

["Ziel der Kommunistischen Erziehung ist es auf Grund eines hohen allgemeinen Bildungsniveaus Produktivität freizusetzen, dies bei speziellen wie nichtspeziellen Begabungen. Meine proletarische Herkunft sowie das Studium bei Professor Bechterew in Petersburg verweisten mich auf dieses Erziehungsprinzip, und ich versuchte, es in Orel auf die proletarisch-ästhetische Kindererziehung anzuwenden"].[93] The program Lacis developed sought to foster children's sense of Soviet values and ideology by means of suggestion as opposed to overt control. Children would put on plays that were conceived through games and improvisation. In this manner, they would come to the common ideology through their own conclusion: "We received proof that we were right in letting the teacher step back. The children believed that they had done everything themselves — and they did so by playing. Ideology was neither forced on nor drilled into the children, they took it on because it matched their experience" ["Wir erhielten den Beweis, daß es richtig war, die Leiter gänzlich zurücktreten zu lassen. Die Kinder glaubten, daß sie alles selber machten — und spielend schafften sie es. Ideologie wurde den Kindern nicht aufgedrängt und nicht eingedrillt, sie eigneten sich an, was ihren Erfahrungen entsprach"].[94] As opposed to Brecht's model of rigid and dispassionate repetition, Lacis's model emphasizes free play and improvisation. Reflexology, allows her to view the brain as a self-correcting feedback mechanism. On such a model, the brain is open to suggestion through imitation or stimulation. Bechterev's term for this kind of suggestion is "associative reflex" ("conditioned reflex, in Pavlov's terms). Pedagogy, in turn, is the stimulation of associative reflexes, designed not to impress the brain like a plastic board — a *tabula rasa*, that needs to be molded or shaped — but to manipulate it as a wired system of pathways that may re-wire — that is, learn — of their own

93. Lacis, A.: Revolutionär im Beruf: Berichte über proletarisches Theater, über Meyerhold, Brecht, Benjamin und Piscator. Rogner & Bernhard. München: 1971, 27. Translation mine.
94. Lacis, *Revolutionär im Beruf*, 29.

accord. Of course, such a model may be abused, but it also makes possible a kind of leaderless learning.

Lacis's ideas on leaderless learning excited both Brecht and Benjamin, the latter writing an article about them entitled "Program for a Proletarian Children's Theater" ["Programm eines proletarischen Kindertheaters"]. In it, he echoed Lacis's conception almost verbatim: In the children's theater, "the teacher steps back completely. For no pedagogical cleverness can foresee how the children combine the gestures and skills they've learned through thousands of surprising variants into a single theatrical totality" ["…tritt der Leiter gänzlich zurück. Denn keine pädagogische Klugheit kann vorhersehen, wie Kinder die geschulten Gebärden und Fertigkeiten mit tausend überraschenden Varianten zu ein theatralischen Totalität zusammenfassen"].[95] The teacher or leader steps back in recognition of their own limitations, for they cannot predict the various possibilities that the children will come up with. In this regard, the theatrical totality is not a single unified idea but rather a composite of surprising variants. The children may create and re-create — wire and rewire — the whole as a composite, as a gathered work of art. On this model, the *Lindberghs* could improvise the story of their hero's flight, rather than simply repeat lines to one another. Of course, given the technology of time, such free play over the radio would have been difficult to imagine. Indeed, even today it is difficult to conceive of an improvised play taking place in virtual space, though video games might be one example. Lastly, as the example of video games shows, this model of learning is not inherently leaderless, egalitarian, or democratic, it simply leaves open the possibility of reforming — that is, rewiring — the *Gesamtkunstwerk.*

*Lindbergh's Flight* attempts, in part, to realize Lacis's goal of leaderless learning on a global scale, albeit without the flexibility of Lacis's model. The *Lindberghs* are instead subjected

95. Walter Benjamin, "Programm eines proletarischen Kindertheaters," in *Revolutionär im Beruf,* 34.

to a masculine adventure narrative that emphasizes not leaderless learning but leaderless discipline. As a pedagogical exercise, writes Brecht, *Lindbergh's Flight* "serves discipline, which is the basis of freedom…such exercises will be useful to the individual only insofar as they are useful to the state, and they are useful to a state that intends to serve everybody in equal measure."[96] This notion of freedom through discipline envisions the state not only as *Gesamtkunswerk* but as a leaderless automaton. The state serves the people and the people serve the state, just as the *Gesamtkunstwerk* is the collective need of the people and *vice versa*. There can be no remainder. The impossibility of this idea is revealed, however, precisely in the fact that Brecht's own hand must be concealed in its construction. The wires of the apparatus must remain hidden behind the stage — behind the radio as a seemingly wireless apparatus.

**Conclusion**

Brecht's attempt to redeem the revolutionary promise of the *Gesamtkunswerk* ends up grappling with its defining tension — the conflict between the gathered and the total. On the one hand, as revolutionary pedagogical experiment, the play stages a use of radio that promises to overturn the relationship between producer and consumer, promotes an egalitarian form of listening and, in so doing, promotes an egalitarian society. Such goals are consistent with the *Gesamtkunstwerk's* own revolutionary roots. On the other hand, in staging this kind of borderlessness, Brecht hides the wires, as it were, of his revolutionary apparatus. These are grounded in an all-too-rigid understanding of behaviorist psychology of reflexes in which human and machine are understood according to a mutually constitutive man-machine metaphor: the brain as network; the network as brain. Such a conception falls victim to the identification without difference of the individual with the collective. At the same time, Brecht's re-conception

96. Quoted in Mueller, "Learning for a new society: *Lehsrstück*," 110.

of the listener-apparatus split should not be considered a failure simply because it repeats a historical problematic. On the contrary, Brecht's notion of audience participation frees up a conception of the *Gesamtkunstwerk* that is not a symbol of community, but rather *is* the community. In this regard, Lacis's conception of leaderless pedagogy — despite its seemingly hidden leader — points in the direction of a *Gesamtkunstwerk* that can re-wire itself.

As a mode of informal non-listening, Brecht's notion of misuc also offers a way to resist the totalitarian implications of the *Gesamtkunstwerk*. This mode is present, to a certain extent, in the *Lindberghs*' detached singing according to the principle, "doing is better than feeling" ["tun ist besser als fühlen"].[97] Though it lacks the playful informality of a jazz show, this mode of listening/singing nevertheless preserves the integrity of the listener's ears and voice over and against the seductive power of music. It maintains critical distance without demanding that the listener have the expertise of a music critic. Misuc thus serves to "confront the powers that exclude" — namely, the bourgeois listening apparatus — "with an organization of the excluded" ["den Mächten der Ausschaltung durch eine Organisation der Ausgeschalteten zu begegnen"][98] — that is, an organization of the masses as distracted, critically distant non-critics. A similar idea is present in Benjamin's conception of the public as "an examiner, but an absent-minded one."[99] Of course, Brecht does not take the implications of misuc to their most anarchic conclusions. The *Lindberghs* may not not listen in any way they chose. Their non-listening must be structured as a particular form of engagement. In this regard, they resemble Ulysses tied to the mast of his ship, listening to the Sirens and yet restrained under the strictest of circumstances.

97. Brecht, "Explanations [About *The Flight of the Lindberghs*]," 39 / "Zu: 'Der Flug der Lindberghs," 87
98. Brecht, "The Radio as a Communications Apparatus," 43 / "Der Rundfunk asl Kommunikationsapparat," 555.
99. "Reception in a state of distraction, which is increasing noticeably in all fields of art and is symptomatic of profound changes in apperception, finds in the film its true means of exercise. The film with its shock effect meets this mode of reception halfway. The film makes the cult value recede into the background not only by putting the public in the position of the critic, but also by the fact that at the movies this position requires no attention. The public is an examiner, but an absent minded one" (Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," trans. Harry Zohn, in *Illuminations* (New York: Schocken, 1968), 240-1).

## III. Sounding the Inaudible: Subsumed Forms of Sound in the City Symphony Films of Walter Ruttmann and Dziga Vertov

### Introduction

In the cinema of the 1920s, an interest in urban environments combined with an avant-garde film practice to give rise to the city symphony film. The idea for a symphonically organized cinema of urban movement most likely suggested itself simultaneously to a number of filmmakers, critics, and theorists, who began using it to compose and describe an array of silent films that drew on avant-garde techniques of abstraction, montage, and interruption in conjunction with cinema's ability to capture urban spaces, movement, and documentary content. Grouped according to various family resemblances such as non-narrative approaches and day-in-the-life structures, these films included Paul Strand and Charles Sheeler's 1920 *Manhatta,* René Clair's 1924 *Entr'acte,* Alberto Cavalcanti's 1926 *Nothing but Time,* Walter Ruttmann's 1927 *Berlin, Symphony of a Big City*, Dziga Vertov's 1929 *Man with a Movie Camera*, Joris Iven's 1929 *Regen*, and Jean Vigo's 1930 *Apropos de Nice.* The genre also included a number of lesser-known gems such as Robert Florey's 1929 *Skyscraper Symphony*, Kenji Mizoguchi's 1929 *Tokai koyogaku,* Rudolf Rex Lustig's 1930 *Sao Paulo, A Metropolitan Symphony,* Herman Weinberg's 1930 *A City Symphony*, and Liu Na'ou's 1933 Vertov spinoff, *The Man who has a Camera.*[1] The purpose of this chapter is not to document or analyze each of these films, but rather to understand the largely unexplored role sound plays in their symphonic conception. What practices determine the soundscapes of these ostensibly silent films? What is their significance? And how do they modify our understanding of cinema's engagement with urban environments as an apparently visual medium?

1. In enumerating these films, I've followed the convention of using the names by which they are most commonly referred in the English literature.

Cinema scholars have acknowledged how the above silent films organize the visual elements of urban experience — e.g. the movements of people, machines, traffic, and crowds — according to musical principles such as rhythm and counterpoint.[2] In general, they have treated these principles as abstract forms that determine the flows of fragmentary visual information, usually leading to one of three possible outcomes: 1) that these principles function as "mediating pedagogies," to use James Donald's phrase, that help accustom distracted spectators to the mental and physical shocks of city life;[3] 2) that they trace, as John Grierson puts it, the "little daily doings" of city life — its surface manifestations — albeit without finality or purpose;[4] or 3) that they marshal an array of gazes that engender and further entrench a panoptic state in accordance with a "modernist ideal of absolute vision."[5] Such views present the city symphony as either a successful, failed, or ambivalent attempt to carry off an enlightenment project of illuminating dark spaces of ignorance and fear through a deeper penetration into the visible world — e.g. by using the camera to observe processes that occur during a fraction of a second or over a long period of time. Far less attention, however, has been paid to the significance of the audial dimension of the above principles — for instance, the way in which they use images to imply sound (such as the image of a ringing bell), or how they deploy motion blur and fast editing speeds to amplify (as well as organize) the otherwise mute urban sounds and noises depicted on screen. The goal of this chapter is to get us to both see and hear these sounds,

2. See, for instance Nora M. Alter, "Berlin, Symphony of a Great City (1927): City, Image, Sound," in *Weimar Cinema*: *An Essential Guide to Classic Films of the Era*, ed. Noah Isenberg (New York: Columbia University Press, 2009), 193-217; Margaret Werth, "Heterogeneity, the City, and Cinema in Alberto Cavalcanti's *Rien que les heures*," in *Art History* 36,5 (2013): 1018-1041; Kim Knowles, "Travels with a camera: Speed and embodiment in early French avant-garde film," in *Studies in French Cinema* 13,1 (2012): 17-31; Ling Zhang, "Rhythmic movement, the city symphony and transcultural transmediality: Liu Na'ou and *The Man Who Has a Camera* (1933), in *Journal of Chinese Cinema*s 9,1 (2015): 42-61. See also the many studies on vision in the city and film including Stephen Barber, *Projected Cities*: *Cinema and Urban Space* (London: Reaktion Books, 2002); *The City and the Moving Image*: *Urban Projections*, eds. Richard Koeck and Les Roberts (UK: Palgrave Macmillan, 2010).
3. James Donald, *Imagining the Modern City* (London: The Athlone Press, 1999), 63.
4. John Grierson, "First Principles of Documentary," in *Grierson on Documentary* (London: Collins), 83-84.
5. Carsten Strathausen, "Uncanny Spaces: The City in Ruttmann and Vertov," in *Screening the City* (London: Verso, 2003), 19-20.

particularly in terms of two films long considered touchstones of the city symphony genre — Walter Ruttmann's *Berlin, Symphony of a Big City* and Dziga Vertov's *Man with a Movie Camera*. These films, I claim, "sound the inaudible:" their visual tracks contain subsumed forms of sound that interact with the environments depicted on screen in ways that go beyond the mere presentation of a cinematic urban landscape accompanied by a musical score. These subsumed forms of sounds occur primarily *between* images — that is, they are generated through the interaction of images and not simply by the implication of sound. By treating our eyes more like ears, one may get a sense of how these subsumed forms compose the silent film's soundscape and how this soundscape challenges the visual paradigm of understanding the city symphony film.

Since the sonic turn in cinema studies, there have been few investigations into silent cinema that go beyond retrieving practices of "sound suggestion" or "implied sound." From these we learn that the mute screen was quite a noisy place. As Michel Chion notes, characters in silent films were often speaking "even more than they would…in a sound film, since they had to make visible the activity of speaking."[6] Likewise, repeated close-up shots of foot stomps, door knocks, ringing bells, and bellowing horns abounded throughout the silent era reminding viewers of the continuous presence of sound in this seemingly mute universe. Such practices of sound implication could be rather complex. Towards the end of *Man with a Movie Camera*, for instance, we see an accordion, a piano, a singing mouth, and an ear alternately superimposed over a radio speaker, implying not just the sound that emanates from the radio, but its connection to spaces outside its immediate location (a Lenin worker's club). A similar scene in Marcel L'Herbier's *L'Inhumaine* (1924) — in which the protagonist, Claire Lescot (Georgette Leblanc), sings to her fans via a special machine that allows her to view them listening over the radio —

6. Michel Chion, *Film*: *A Sound Art*, tr. Claudia Gorbman (New York: Columbia University Press, 2003), 3.

has led Sam Halliday to claim that "sound in modernism, in whatever art form, is irreducible to sound alone. Sound, instead, is best conceived as a configuration, with 'real' sound at its centre, to be sure, but other sense phenomena, such as touch and vision, rarely at more than one or two removes on its periphery."[7] The city symphony shows that this configuration concerns more than just the visual implication of sound or sound transmitting devices (e.g. the radio). While the practice of sounding the inaudible includes implied sound, this is not necessarily its most salient feature. Rather, city symphony filmmakers relied on a number of techniques including reverse, slow, or fast motion, camera movement, pacing, montage, superimposition, and shape patterns to create sonic effects such as noise, dissonance, rhythm, or harmony. By doing so, they generated aural environments that truly merit the term "symphonic."

Consider a sequence from Ruttmann's *Berlin, Symphony of a Big City* (hereafter, *Berlin*). *Berlin* follows the life of the city in five acts that evoke the rhythms and pacing of daily life, from the awakening of the city at dawn to its evening entertainment. The film's image track makes reference to a number of implied urban sounds such as those of an organ grinder, telephone operators, industry, and typewriter keys. Less remarked upon is how the image track makes use of fast intercutting, superimposition, and motion blur to amplify such implied sounds, thereby generating the visual equivalent of their aural manifestations. Ruttmann deploys all three techniques, for instance, in the amplification of the last sound — the stochastic clacking of typewriter keys — in a sequence that takes us into the offices of a large firm. Here, we see young secretaries sitting in organized rows methodically yet speedily typing up memos. Shots of their hands alternate quickly with those of hammering type-bars, round placid faces, and circular keys, thus emphasizing the click-clack of a typewriter with every rapid change of frame. As the

7. Sam Halliday, *Sonic Modernity*: *Representing Sound in Literature, Culture and the Arts* (Edinburgh: Edinburgh University Press, 2013), 3.

sequence progresses, the pace of the montage increases: close-ups of keys (J, K, L) are superimposed upon one another and begin to swirl, blurring and distorting until their circular motion breaks the frame rate, giving way, through a match cut, to the spinning figure of a rotorelief. This spinning blur connotes disorientation, vertigo, and a loss of control, feelings commonly associated with the frantic pace of modernity and urban life. More importantly, this blur presents these feelings in audio-visual guise. The noise and general hubbub of the room is subtly underscored by a visual noise understood as an excess of information.

As I hope to show, the manner in which Ruttmann and Vertov's films utilize visual noise — particularly in terms of its ability to blur or threaten borders (see: Introduction) — as well as other subsumed forms of sound such as shape-tones, motion curves, and movement intervals, combines the local specificity of Arseny Avraamov's *Symphony of Sirens* with the potential global reach of Brecht's *Lindbergh's Flight* in an attempt to manipulate the political and spatiotemporal relationships that constitute the city. Like the previous two compositions, Ruttmann and Vertov's attempts are the locus of a number of productive tensions that concern the composition and management of a community as opposed to the orientation of an individual spectator. Some of these tensions — such as those between the local and the global, the fragmentary and the total, the ecstatic and the material, noise and music — were explored in greater detail in the previous chapters.[8] In this chapter, I would like to add a further one, namely that between stimulation and control, which manifests itself through the interplay of sounds, images, and visual forms. This additional tension shows how the city symphony regulates a community through the control of aural environments.

8. Here we should recall that a number of films in the symphony film genre were composed as global or regional symphonies. These films include both Ruttmann and Vertov's first sound films: 1930's *Melodie der Welt* and 1931's *Enthusiasm*: *Symphony of the Donbass.* Interestingly, with the exception Dziga Vertov's films, the turn to global symphonies parallels to a large extent the advent of sound cinema.

In what follows, I explore how these subsumed forms of sound in Vertov and Ruttmann's films — as well as those of their counterparts — manifest these tensions through their deployment of audio-visual techniques. Part one examines the contrapuntal interaction between image and sound tracks conceived as complementary yet separate melodic lines. As I hope to show, both tracks went beyond traditionally defined roles of "depicting actions" and "setting the mood." Having established the melodic nature of the visual, part two explores how the visual track generates sound, dissonance, and noise as a means of stimulation and control, particularly in *Berlin, Symphony of a Big City*. In this regard, I argue that film's visual track plays what Jacques Attali has referred to as music's "game of power"[9] — a cathartic dynamic of tension and release intent on maintaining relationships of dominance. Part three further expands on this game by considering how *Man with a Movie Camera* deploys noise as a means of overturning such relationships, particularly insofar as they take the form of established aesthetic hierarchies of music and noise. Specifically, I claim that in Vertov's film noise plays a role similar to that of laughter in Rabelais according to Bakhtin — one that levels the distinctions necessary for maintaining domination. At the same time, I suggest that Vertov's attempt to control laughter as a Dionysian outpouring resembles Arseny Avraamov's attempt to marshal noise in the *Symphony of Sirens* (Ch. 1). Part four turns from the dynamic of stimulation and control as manifested by visual forms to the visual forms themselves as graphic representations of sound. Here, movements manifest themselves as sonic phenomena in the form of motion curves and movement intervals. These, I suggest, are related to 19th and 20th century investigations into the physics of sound and movement, particularly as means of inscribing movements on the body. This parallels previous psychophysical concerns in chapters one and two. Lastly, part five

9. Jacques Attali, *Noise*: *The Political Economy of Music*, tr. Brian Massumi (Minneapolis: University of Minnesota Press, 1985), 28.

examines how the aforementioned inaudible sound techniques manipulate the dynamics of space and time within the city symphony. Despite their use of similar audio-visual devices, I argue that the spatiotemporal effects of Ruttmann and Vertov's films are quite different: *Berlin* presents us with a conception of space and time that I characterize as "empty" insofar as it depicts events in a simultaneous yet unrelated manner. *Man with a Movie Camera*, on the other hand, presents us with a conception that is "full" insofar as it depicts both time and space as materials that can be manipulated by collective effort — particularly, one that is coordinated by the cinematic apparatus. As such, in sounding the inaudible, both city symphonies do more than just experiment with our sensory faculties in a manner that has not been articulated by visual approaches to film. Rather, similar to the compositions of the previous chapters, they engage with the social problems of the day by putting forward conceptions of an audio-visually related community facilitated by a technical apparatus.

**I. Sound and Image**

To establish the melodic nature of *Berlin*'s image track, it may be best to start off with a musical overview of the city symphony as a whole. We start with a train arriving in the city at dawn. We see empty streets gradually fill up with people opening up shops while night owls walk home from late-night revelries (*Overture*).[10] As the day progresses, the pace of the montage begins to increase, reflecting the hurriedness of modern times (*allegro*). Men and women rush to catch trains, machines churn out lightbulbs, and bread is made in a factory. At around noon we are given a break for lunch. The tempo slows (*adagio*) as men and women, rich and poor, children and even animals are shown taking a rest. Then, abruptly, a man taps his teacup with a spoon, pays for his meal, and the day continues even faster than before (*presto*): newspapers are printed

10. My designation.

and distributed, the camera takes us on a rollercoaster ride, a woman commits suicide (the film's only "fictional" scene), and so on into the night when we witness Berlin's evening entertainments — dancing, a boxing match, a Chaplin flick, etc.

In organizing this onslaught of visual information, Ruttmann relied on techniques he had learned from a number of different professions including architect, impressionist painter, amateur musician, advertising designer, and filmmaker. In this regard, as a number of scholars have pointed out, Ruttmann's interest in music and sound was particularly important in organizing the film's visual materials.[11] This musical organization is most apparent in Ruttmann's early abstract films, *Opus I-IV* (1921-1925), which, like the films of Hans Richter and Man Ray, present a rhythmic play of shapes and colors. Far from art for art's sake, however, these films reflected Ruttmann's belief that only cinema, due to its musical quality and ability to capture movement, could adequately grasp the pace of modern life.

In a 1919 article, Ruttmann argued that this new "time character" ["Zeitcharakter"] of modernity — characterized by the speed of "telegraphs, express trains, stenography, photography, and the press etc.,…" ["Telegraf, Schnellzüge, Stenografie, Fotografie, Schnellpressen, usw.,…"] — required a new kind of "painting with time" ["Malerei mit Zeit"] that only the cinema could accomplish. He characterized such painting as:

> [a]n art for the eye, that distinguishes itself from painting in that it plays out in time (like music), and whose artistic emphasis is not (as in a picture) in the reduction of a (real or formal) event to a single moment, but rather in the temporal development of the formal. Since this art unwinds temporally, one of its most important elements is the rhythmic timing of the optical event.
>
> [e]ine Kunst für das Auge, die sich von der Malerei dadurch unterscheidet, daß sie sich zeitlich abspielt (wie Musik), und daß Schwerpunkt des Künstlerischen nicht (wie im Bild) in der Reduktion eines (realen oder formalen) Vorgangs auf einem Moment liegt, sondern gerade in der zeitlichen Entwicklung des Formalen. Da diese Kunst sich zeitlich

11. On Ruttmann's abstract film practice see Maria Teresa Arfini, "Abstract Film as Viewable Music: Early Experiments of Hans Richter, Walther Ruttmann and Oskar Fischinger, in *Music in Art* 38,1-2 (2013), 213.

> abwickelt, ist eines ihrer wichtigsten Elemente der Zeit-Rhythmus des optischen Geschehens.[12]

Picking up on this rhythmic timing of the optical event at *Berlin*'s premiere, the film critic, Herbert Jhering, described Ruttmann's film as "image music" ["Bildmusik"].[13] Likewise, in their assessments of the film, both Béla Balázs and Siegfried Kracauer referred to the film's "optical music" ["optische Musik"] in *The Spirit of Film* [*Der Geist des Films*][14] and *From Caligari to Hitler* [*Von Caligari zu Hitler*][15] respectively. In this regard, *Berlin* was both praised and criticized, with some critics hailing its musical structure as promoting a truly poetic form of filmmaking, while others such as Kracauer (following Paul Rotha) arguing that this structure was "tantamount to a 'surface approach,' inasmuch as it [relied] on the formal qualities of the objects rather than on their meanings." In contrast to Vertov's film which caught unawares the "revolutionary energies that penetrate…every element" of Soviet life, Kracauer claimed, Ruttmann's film reflected only the reality of a German republic that was "nothing but an unsubstantial conglomeration of parties and ideals.[16] In other words, the film's musical composition of scenes from Berlin life was an anti-revolutionary gesture.

The extent to which this criticism holds weight with current viewers or critics will be evaluated further in subsequent sections. For now, it is important to note that *Berlin'*s interest in the "rhythmic-timing of the optical" or "image music" went further than the mere formal considerations supposed by Kracauer's criticism. As Kracauer himself points out, during production, Ruttmann collaborated with the composer Edmund Meisel (also known for scoring

12. Ruttmann, W.: Malerei mit Zeit. In: Goergen, J.: Walter Ruttmann. Eine Dokumetation. Freunde der Deutschen Kinemathek. Berlin: 1989. p 74. Quoted in translation in Nora M. Alter, "Berlin, Symphony of a Great City," 212, fn. 3. Translation modified.
13. Michael Cowan, *Walter Ruttmann and the Cinema of Multiplicity* (Amsterdam: Amsterdam University Press, 2014), 55.
14. *Ibid.*
15. Siegfried Kracauer, *From Caligari to Hitler*: *A Psychological History of German Film* (Princeton: Princeton University Press, 2004), 183.
16. Siegfried Kracauer, *From Caligari to Hitler*, 186.

Eisenstein's *Battleship Potemkin*, 1925), developing a score that would depict the polyphonic simultaneities of urban experience. Kracauer, however, missed the significance of this score for the film as a whole, particularly insofar as it complicates the film's "abstract" rendering of the pace of modern life. Meisel's original score, performed at the film's premiere, made use of a full orchestra and Russollo-esque noise machines, or *intonarumori*, creating a visceral experience of the film's depiction of urban noise.[17] As Carolyn Birdsall notes, "[i]n preparation for the film, Meisel actively listened to the noisy sounds of the city and sought to feed this experience into the musical score. Some of these noises included tram bells, car horns, night-time track work and factory sounds, which were approximated with instruments (horns, tubas, cymbals) as well as anvils, iron rods, metal sheets and car horns."[18] It is not the case, however, that these sounds were solely intended to create the impression of a "sound film"; rather, they worked in tandem with the visual track to create an immersive experience — a soundscape, in today's parlance, of modern life. At the same time, in doing so, these sounds not only brought the film's visual track to life, they also commented on it through slap-stick style sonic effects — e.g. the use of *wah-wah* trombone sounds during a shot of Charlie Chaplin's feet on a movie theater screen.[19] This interaction between the visual track and the score was a mode of commentary — whether ironic or otherwise — that rendered the film's visual information differently depending on how the score was interpreted by the conductor or piano player. *Berlin*'s sounding the inaudible further complicates this dynamic insofar as it uses the image track to amplify events on screen. Doing so allows the film to reverse the direction of the commentary back onto the soundtrack, creating a

17. Carolyn Birdsall, "Resounding city films: Vertov, Ruttmann and early experiments with documentary sound aesthetics," in *Music and Sound in Documentary Film* (New York: Routledge, 2015), 32. Birdsall focuses primarily on implied sound. Meisel's scores is preserved as a four-hand piano reduction. The extent to which the film was accompanied by a full orchestra is not known, but most like this only occurred on special occasions due to the cost of employing a full orchestra.
18. *Ibid.*, 32-33
19. *Ibid.*

prismatic effect of possible meanings — that is, a content that goes beyond the mere "reflection" of an empty surface reality. In this sense, Ruttmann's *Bildmusik* is more than just image-music; rather, it is a form of sound art whose audible quality generates meaning beyond the mirroring capacity of the image.

In contrast to *Berlin*, Vertov's *Man with a Movie Camera* departs in many ways from the formal symphonic structure of the city symphony film. The film loosely follows the adventures of a cameraman (Vertov's brother, Mikhail Kaufman) over the course of six episodes in which he can be seen filming various aspects of Soviet life. The film itself, however, is an amalgamation of footage, primarily from four cities — Moscow, Odessa, Kharkiv, and Kiev — that Vertov shot over the course of three years with his group, the "Kinoks" ("Kino-eyes"). As such, like Vertov's other symphony films, it demonstrates the idea that urban connectivity — e.g the flows of traffic and commerce — may be a model for global relationships as tracked by the cinematic apparatus. Roughly, the first episode of the film introduces us to the cameraman and to the general concept of a film within a film. Here we are given pictorial explanations of the camera's function — e.g. the opening and closing of the shutter — and a demonstration of the cameraman's heroic feats (at one point he nearly gets run over by a train). The second episode presents the awakening of the city — the washing of streets, the movement of traffic, the purchasing of eggs at the market. The cameraman also participates, waking up a few sleeping workers and catching their reactions. Things really get moving in the third episode, in which, following a sequence of photograph-like still frames commonly referred to as the "frozen motion sequence," we are shown the full scope of city life — marriage, divorce, birth, death. Meanwhile, trolleys and automobiles speed across city streets and an ambulance rushes to help a man injured in a trolley accident. Episode four moves from street scenes into factories and plants. Here, the focus is on machine movement in

accordance with Vertov's early aspiration of using the cinema as a tool for the creation of the "perfect electric man."[20] We see the spinning of a thread making machine and the movements of steelworkers contra-posed to those of hairdressers, manicure technicians, laundresses, etc. Episode five takes us into the world of sports and leisure in which we see the healthy movements of Soviet bodies alongside those of vacationers at rest. Finally, in episode six, we are again presented with a contrast, this time in leisure activities. The camera gets drunk in a beerhall, then straightens up when it sees a Lenin's worker's club. Inside, laborers play chess, listen to music on the radio, and participate in a makeshift "noise orchestra" ["шумовой оркестр"][21] of spoons and household instruments. As the noise grows, we are treated to a recap of street scenes in fast motion, the splitting of the Bolshoi theater, and the victorious reception of the finished film in theaters.

Unlike Ruttmann, Vertov did not collaborate with a composer in constructing his film, nor did the film have, strictly speaking, a musical score. Instead, somewhat like Avraamov's *Symphony of Sirens*, the film's synopsis came with a set of musical instructions corresponding to particular scenes and movements. Indeed, in a striking parallel with Avraamov's composition, there is not one set of instructions but two: the first — a draft of a "musical scenario" [музыкальный сценарий"]; the second — an official "musical synopsis" ["музыкальный коноспект"] approved by Sovkino in 1929 and most likely performed at the film's premiere as well as at subsequent screenings in the Soviet Union. In general, the draft is more avant-garde than the official synopsis, which relies primarily on music that could be easily played on the piano. This was most likely the case in order to accommodate performances that did not have a

20. Dziga Vertov, "We. A Version of a Manifesto," in *The Film Factory*: Russian and Soviet Cinema in Documents 1896-1939 (London: Routledge, 1988), 71.
21. *Вертов. Д.* Человек с Киноаппаратом [Музыкальный сценарий]. Из наследия. Эйзенштейн-центр (2008), 1: 129.

full orchestra of sound effects available to them. Both sets of instructions, however, are interesting in their own right. The official synopsis makes use primarily of a proto-sampling technique common to live film music that had to rely on a performer's familiarity with certain tunes and styles of playing. The synopsis is divided into four columns: the first provides a description of events on the screen (e.g. "Market, traders, buyers, women buy eggs and inspect them" ["Рынок, торговцы, покупатели, бабы покупают яйца и смотрят их"]; the second marks their duration (e.g. 45 sec.); the third gives a description of the sound (e.g "Joyful Russian music" ["Веселая русская музыка"]); and the fourth suggests a piece to play that achieves this result (e.g. Tchaikovsky. "February" [Чайковсий. "Февраль"].[22] In this manner, musical accompaniment more often than not provided the mood of the scene, rather than direct sound effects, most of which — such as in the famed scene of a worker playing spoons — were left to the spectator's own imagination — i.e. implied sound. At the same time, the very fluidity and recognizability of the songs playing in the background would have most likely dampened the effect of the images by making the discontinuous breaks between them appear continuous.[23]

By contrast, Vertov's draft of the musical scenario is less exact with respect to timing, but more ambitious with regard to sound.[24] The same scene, for instance, is amplified with a vague "[m]usical air associatively tied with the market, with trade, with an accordion, with the coming of the gramophone" ["Музык[кальная] вещь, ассоциативно связано с базаром, с торгавлей, с гармошкой, с приближающимся грамафоном"].[25] What the "coming of the gramophone" sounds like is, of course, anybody's guess, though the movement of the instructions appears to suggest that it is a kind of transition from the old to the new. The next instruction, for instance,

22. *Ibid.*, 131.
23. On the role of continuity in film music see Theodor Adorno and Hanns Eisler, *Composing for the Films* (New York: Continuum, 2007), 62-70.
24. The Alloy Orchestra score is an excellent example of the dynamism of these instructions.
25. *Вертов. Д.* Человек с Киноаппаратом [Музыкальный сценарий]. Из наследия. 1: 127.

features the sounds of a march dissolving into the noise of a train. More often than not, however, such vague streams of associations are not meant to evoke a particular mood, so much as they are intended to capture the movement of the film's visual track, an avant-garde practice that was later adopted by film sound designers. In this regard, the famed "frozen motion" sequence — in which all movement ceases and is replaced by a sequence of stills — is rendered with "individual mute sounds, like droplets falling into silent water (piano)…" ["Отдельные глухие звуки, как капли падающей в тишине воды (рояль)"].[26] Here, an instrument (piano) imitates the sounds of nature in order to give life to a wholly different set of visuals, not by capturing their mood, but by amplifying their editing speed. As the sequence of stills builds back up into fluid motion, so the drops of water become a flowing stream, resuming the pacing of the earlier chase sequence with a comical foxtrot. Vertov's draft for a musical scenario thus presents us with an avant-garde sound practice in which the pace of visuals and those of the score mutually constitute one another. As subsequent sections will show, this is an important feature of "sounding the inaudible" insofar as it points to the possibility of visual amplification. Not only do the sounds of dropping water amplify the silent movement of images; this movement itself may be used to amplify movements on screen or intensify the score.

Yet, for Vertov, the interaction between sound and image concerns more than mere amplification; rather, it concerns the structural relationships between things in the world. Interestingly, what Vertov called the "Kino-Eye" ["Кино-Глаз"] — the organization of the visible world of "facts" through montage — has its roots in his interest in sound. As Andrei Smirnov has pointed out, Vertov's career as a filmmaker got its start with a desire to systemize all sounds — from lumber mills, factories, and waterfalls to music and human speech — in what he called the "Laboratory of Hearing" — Vertov's rather grandiose name for a room where he

26. *Ibid.*

worked in 1916. Here, Vertov sought to systemize sounds using a combination of verbal and musical symbols but grew frustrated due to the "absence of a device by means of which [he] could record and analyse these sounds."[27] At that time, sound recording technology was not sufficiently advanced to allow for this kind of analysis — but the camera was. In this regard, Vertov claimed to have had his breakthrough:

> Once in the spring of 1918 — returning from a train station there lingered in my ears the signs and rumble of the departing train…someone's curses…a kiss…someone's sobbing…laughter, a whistle, voices, the ringing of the station's bell, the puffing of the locomotive…whispers, cries, farewells…And I thought to myself while walking: I must get an apparatus that won't describe but will record, photograph these sounds. Otherwise it's impossible to organize, to edit them. They rush past, like time.
>
> But maybe the kino apparatus? Record the visible…Organize not the audible, but the visible world. Perhaps that's the way out…At that moment, I met Mikhail Kol'tsovyi, who offered me a job in film.
>
> И однажды весной 1918 г. — возвращение с вокзала. В ушах еще вздохи и стуки отходящего поезда…Чья-то ручань…поцелуй…Чье-то всхлипывание…Смех, свисток, голоса, гудок паровоза…Удары вокзального колокола…шепоты, кр[ик], возгласы и прощальные приветствия…И мысли на ходу: надо, наконец, достать аппарат, который будет не описывать, а записывать, фотографировать эти звуки…Иначе их сорганизовать, смонтировать нельзя…Они убегают, как убегает время…
>
> Но может быть, киноаппарат…Записывать видимое…Организовывать не слышимый, а видимый мир. Может быть в этом — выход…В этот момент — встреча с Мих. Кольцовым, который предложил работать в кино.[28]

Though colored by hindsight (the recollection was set down in 1940), these remarks should give us pause, for they demonstrate how Vertov thought of the interrelatedness between sounds and images. These were two sides of the same coin — a world of "facts" that Vertov would later expand to smells, touch, and even thoughts.[29] For Vertov, these facts could in principle be

27. Andrei Smirnov, *Sound in Z* (London: Koenig Books,2013), 26
28. *Вертов. Д.* "Как это началось." 1940. Из наследия. 2: 557. Quoted and translated in Smirnov, *Sound in Z*, 26. Translation modified.
29. In an article entitled "On the Radio-Eye" ["О Радио-Глазе"], Vertov sets down his vision thus (original in all capital letters): "From the montage of facts seen and recorded on film (Kino-Eye) to the montage of facts seen, heard and transmitted over the radio (Radio-Eye) to the simultaneous montage of seen, heard, tactile, and olfactory (etc.) facts, to the 'capturing of human thoughts unawares,' and finally, to great experiments in the immediate organization of all…human thoughts — such technical perspectives of the Kino-Eye have been called into being by

systematized by the cinematic apparatus (or a cinema-like apparatus), thereby giving rise to a vast community of the senses, one which John MacKay has designated as the "sensory agora."[30] In this regard, the Kino-Eye — "the montage 'I see'" ["монтажное 'вижу'"] — organizes and records the visible world;[31] the "Radio-Ear" ["Радио-Ухо"] — "the montage 'I hear'"[32] ["монтажное 'слышу'"] — organizes the audible; and the "Radio-Eye" ["Радио-Глаз"] — the montage "of audio-visual and radio transmittable facts" [монтаж "видимо-слышимых и передаваемых по радио фактов"][33] — brings these two forms of organization together. In what follows, I suggest that in *Man with a Movie Camera* we see (and hear) an implicit fourth term — the "Kino-Ear" [Кино-Ухо], the organization of the visible as audible and vice-versa. This form of sounding the inaudible presents what we think of as 'sound' in the city symphony film as a configuration of audio-visual practices.

## II. Tension and Release

Due to the "dynamic acoustic environment" that its musical editing style suggests, Ruttmann's city symphony has been compared favorably with Luigi Russolo's "Art of Noises" (see: Introduction). Indeed, one scholar has argued that it prefigures "in certain ways what would decades later be realized as concrete music"[34] — that is, *musique concrète*. In fact, in

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the October [Revolution]" ["От монтажа видимых и записанных на пленке фактов (Кино-Глаз) — К монтажу видимо-слышимых и передаваемых по радио фактов (Радио-Глаз), к монтажу одновременно видимых-слышимых-осязаемых-обоняемых и т.д. фактов, — к 'съемке врасплох человеческих мыслей' и, наконец, — к величайшим опытам непосредсвенной организации мыслей…всего человечества — таковы технические перспективы 'Кино-Глаза', вызванного к жизни Октябрем"] (*Д. Вертов*. О Радио-Глазе. Из наследия. 1:163).
30. John MacKay, "Disorganized Noise: *Enthusiasm* and the Ear of the Collective," in *KinoKultura* 7 (2005): 4:12. http://www.kinokultura.com/articles/jan05-mackay.html.
31. *Вертов, Д.* "Киноки. Переворот." Из наследия 2: 41. A translation appears in Dziga Vertov, *Kino-Eye*: *The Writings of Dziga Vertov*, ed. Annette Michelson, tr. Kevin O'Brien (Berkeley: University of California Press, 1984), 18. Translation modified.
32. *Ibid.*
33. *Вертов, Д.* "О Радио-Глазе." Из наследиия, 2:163. On the progression from Kino-Eye to Radio-Ear to radio-eye see *Вертов, Д.* "Радио-Глаз." Из наследия, 2: 97-100.
34. Nora M. Alter, "Berlin, Symphony of a Great City," 211.

subjugating city noise to an organizational scheme, Ruttmann's editing style plays a more conservative game than Russolo's noise art, one that recalls the restraint of a classical symphony more than the seeming anarchy of noise music. This classical restraint manifests itself largely through a play of shapes and montage speeds that build tension and provide release. Recall, for instance, the sequence briefly examined in the introduction to this chapter — that of secretaries typing up office memos. Here, the spin of superimposed typewriter keys produced feelings of disorientation and information overload while the pace of montage emphasized the bustle of the room. The spinning keys congealed, through a match cut, into the spiral figure of a rotorelief — a form that appears multiple times throughout the film at moments of chaos and confusion. The significance of this form is its ability to structure the otherwise painful flicker and blur of the images it contains. In doing so, it delivers a controlled shock to the spectator, one that not only amplifies the otherwise mute onscreen sounds, but also plays into the larger dynamic of tension and release in the symphony as a whole.

This dynamic manifests itself most strikingly in the suicide sequence, the only fictional scene in the film. Here, the camera juxtaposes the roundness of the victims eye's, shown in extreme close-up, with a vertiginous upward spinning shot of a tree canopy, followed by another rotorelief, and the victim's splash in the water below. The speed of the montage amplifies both the sound of the splash and the rush of gawkers coming to see (but not rescue) the woman who has apparently vanished beneath the water's surface. Following her death, the sequence begins to impose order with a series of alternating circular and linear shots of unrelated images that function like cadence material, bridging the suicide sequence to the episode that follows. These includes shots of spinning fashion models (in a circular formation) demonstrating clothing, linear shots of traffic and traffic signs (arrows), fighting dogs, a carousel ride, and trains. Life in the

city moves on, resuming its habitual shapes. As if on cue, the police and fire departments arrive, along with stable camera angles that re-orient the viewer.

The interaction between these two forms — linearity and circularity — regulates, in many respects, the visual and aural excess of *Berlin* as both city and film. The figures impose order, even a kind of rationale, on the noise, violence, and confusion they manipulate and contain. Similar to a classical symphony, the forms manage the viewer's experience — often building tension through circularity and providing resolution through linearity. This dynamic results in a kind of catharsis, a feeling of security and well-being. Through these forms, the pulse of city life is presented as natural, even organic. Indeed, the structure of the film as a dialectic between these two figures recalls a similar dialectic that Goethe became obsessed with in his later years — that between the vertical tendency and the spiral tendency, both of which, he argued, were needed in equal measure for healthy organic growth.[35] This dialectic also has an interesting gender dynamic that is relevant for *Berlin*. For Goethe, as Sabine Mainberger neatly summarizes, the "spiral tendency of vegetation" manifests itself in "spiral forms/growth of plants, and when this form binds itself to a vertical form, the resulting whole is associated with both sexes: the spiraled tendency acquires a feminine connotation and the vertical tendency a masculine connotation."[36] In *Berlin,* the spiral and vertical are similarly coded according to gender. Episodes of circular motion tend to follow feminine characters — the secretaries typing up memos; the woman in the suicide sequence. Episodes of linear motion, on the other hand, tend to follow masculine professions — police officers and firemen.[37] Like a healthy plant,

35. Goethe, J.W. von. Über die Spiraltendenz. In: *Die Schriften zur Naturwissenschaft. Vollständige mit Erläuterungen versehene Ausgabe im Auftrage der Deutschen Akademie der Naturforscher Leopoldina* [*Leopoldina-Ausgabe*]. ed. Dorothea Kuhn und Wolf von Engelhardt. Weimar, 1947- (LA) I. 10, p. 339-42.
36. Sabine Mainberger, "In the Vortex of the Spiral Tendency" — questions of aesthetics, literature and natural sciences in the work of Goethe," in *Estudos Avançandos* 24: 69 (2010), 205.
37. This point has also been made by Sabine Hake, "Ruttmann's *Berlin, Symphony of a Big City*," in *Dancing on the Volcano*: *Essays on the Culture of the Weimar Republic* (Columbia: Camden House, 1994).

Ruttmann's *Berlin* is the product of a balance between these tendencies — the circular motion of the spiral channeled into the linear striving and directness of the vertical. Such a notion has a distant echo in the idea of cinema itself (the linear film strip on the circular reel) yet one perceives it most keenly in the concluding shot of the film, which depicts a spinning spotlight atop a radio tower — a metaphor for the vertical and circular striving of the modern city, as well the film that illuminates it.

Ruttmann derived the above forms from his abstract films, as well as his work in advertisement. As Michael Cowan points out, similar to advertisement, these forms manage experience through a form of affective body control.[38] We get a sense of how this dynamic works in the film's opening sequence. Here, an image of water serves as the films ur-form. This image is reminiscent of noise, specifically in terms of what Douglas Kahn calls *all sound*.[39] For Kahn, *all sound* was the result of the phonographs incursion into the world of music — specifically, its ability to hear and record everything, thus making any frequency whatsoever a possible basis for composition (the organization of the audible). Just as noise contains such a heterogeneous number of frequencies that no single one of them can be distinguished — hence implying all sounds — so water contains such a great number of shapes that no single figure can be discerned. From this image of all shapes, three particular ones emerge: the line, the circle, and the square. Together, they amount to a graphic tri-chord — a statement of the film's visual tonality. The three shapes alternate at increasingly rapid tempos until they begin to pulse, giving way, through a match cut, to a pair of falling railroad crossbars. Not surprisingly, the sequence that follows is a violent one: a speeding train nearly runs over the camera. The film's initial shape-tones are mobilized to manage this shock. As the train advances toward Berlin, we see the same graphic

38. Michael Cowan, *Walter Ruttmann and the Cinema of Multiplicity*, 29-32.
39. Douglas Kahn, *Noise Water Meat*: *A History of Sound in the Arts* (Cambridge: MIT Press, 1999), 70-71; 74-76.

elements in the alteration of wheels, tracks, windows and power lines. Again, the image track amplifies the implied noise of this train through fast editing and motion blur. As in the film's opening sequence, the oscillation of patterns, both within and between shots, begins to pulsate. The tracks blur into a single mass, bursting the frame rate with visual excess. Our initial shape-tones — line, circle, and square — lose their contours, only to be re-established in the next shot depicting a straight line to Berlin. This re-establishment creates a feeling of kinetic resolution.

In terms of Jacque Attali's theory of noise (see: Introduction), this dynamic, which repeats itself throughout *Berlin*, articulates a power structure of sensory management. One is made to feel, throughout the film, as if one were on a rollercoaster ride. Indeed, such an attraction is the basis of another important scene in the film, in which, after experiencing a series of flashing newspaper headlines — "crisis," "murder," "stock market," "marriage," followed by "money" six times in rapid succession — we suddenly find ourselves flying down a rollercoaster, its tracks blurring to match the impression of newspaper print. Here, we see the same alteration of shapes (lines, circles, squares) in the tracks and movement of the rollercoaster, whose ups and downs give a physical sense to the inflation that gripped the German financial markets after WWI. This visual motion is not merely analogous to noise; it is in fact sensed by the same inner-ear vestibular mechanism that registers both noise as a non-periodic frequency and motion sickness — namely, the sacculus. Thus in the rollercoaster scene noise as sound meets noise as nausea.[40] It is important to note, however, that this noise/nausea is tightly controlled by the aforementioned shape tones, thereby tempering its sense of fear and inflation with one of security akin to that of an ever-present and stable state. These shapes organize noisy motion into

40. Indeed, in English, the two words share the same etymological root — the Greek *naus*, or ship. Noise and motion-sickness thus have a long and interrelated history, one that stretches back, in evolutionary terms, to the time when "fish gill arches became inner ear bones, and integrated balance with vibratory sensation" (Jonathan Berger, "How Noise Makes Music," *Nautilus*, July 21, 2016, http://nautil.us/issue/38/noise/how-noise-makes-music.

material for composition, thereby allowing the audience to experience the "intoxication of movement without knowing precisely where their intoxication stems from" ["…den Rausch der Bewegung erleben, nicht wissen, woher ihr Rausch kommt"].[41] The etymological connection between this intoxication (Rausch) and the German word for noise (Geräusch) further underscores *Berlin*'s musical game of sensory control. In this regard, *Berlin* is not, as Kracauer claimed, a mere "record" of "fact among facts"[42] that portrayed an uneasy yet stable period in the history of the Weimar republic; rather, the film actively constructs this sense of stability through the musical interaction of its montage. As such, Ruttmann deployed formal shape structures to create a managed aural environment that allowed viewers to experience the shocks of modernity in relative safety.

A similar, albeit more adventurous rollercoaster scene in René Claire's *Entr'acte* may give us a sense of this safety by way of comparison. Set in Paris, Claire's film presents a Dadaist take on the city symphony genre, one more open to the shocks of modernity, which it seeks to channel through self-ironizing humor. The film quite literally turns the world upside down, with events shot from every possible angle using a combination of accelerated, reverse, and slow motion. A chase after a funeral carriage in slightly accelerated motion places us suddenly on a rollercoaster, shot (as in *Berlin*) from a first person perspective. Unlike *Berlin*, however, the film does not draw our eye to any specific forms, but rather superimposes one moving image of the rollercoaster ride over the other, layering in further images of the city skyline and rides through countryside until we no longer know in which direction we are moving. As the music, composed by Erik Satie, accelerates and crescendos, so does the pace of the montage and we find ourselves riding the rollercoaster upside down and apparently in reverse. This alteration of images and

41. Ruttmann, W.: Wie ich meinen BERLIN-Film drehte. In: Goergen, J.: Walter Ruttmann. Eine Dokumetation. Freunde der Deutschen Kinemathek. Berlin: 1989. p 80.
42. Siegfried Kracauer, *From Caligari to Hitler*, 186.

superimpositions continues until the screen is so dense that we can hardly make out a single discernible feature while nevertheless remaining aware of ever-constant movement. The film, however, offers no resolution to this chaos. The montage and music suddenly slow, the coffin drops out of the funeral carriage, and a man — shot earlier in the film — emerges in the guise of a magician.

Audible differences between these seemingly similar scenes underscore the safety mechanisms at the heart of Ruttmann's *Berlin.* Both the visible and audible noise of Claire's film are far louder than those of Ruttmann's. *Entr'acte* appears to relish the shock of this noise as a threat of death, but also as a form of laughter in the face of it. Personifying this dynamic, the man in the funeral carriage both succumbs to death and pokes fun at it by emerging from his coffin. In the final scene, we see him using his magic wand to vanish his friends (as well as himself) from the screen, a reverse pun on the cinema's ability to defy death by preserving people's images. Such forward and reverse cinematic puns are reflected in the play of forward and reverse motion in the rollercoaster scene: its noise is disorienting and chaotic — even more so than *Berlin* — but at the same time humorous. By contrast, Ruttmann's film seeks to manage this noise through the cathartic play of tension and release. The noise of the rollercoaster scene — and throughout the film as a whole — is univocal: it communicates a threat that must be brought under control through the play of forms. As such, the audial dynamics of the film seek to manage the shocks of modern life not by simply accustoming the viewer to a rapid flux of images, but through their musical amplification, organization, and control.

## III. Noise and Laughter

In certain respects, Vertov's *Man with a Movie Camera* deploys noise in a manner similar to *Berlin*. We see familiar images of machine motion, newspaper production, and typing keys, amplified by a pace of montage that outstrips the eye's ability to see. In this regard, however, Vertov's film resembles *Entr'acte's* use of noise more than *Berlin*'s, albeit with a far lesser degree of mocking self-irony. Specifically, while *Man with a Movie Camera* uses noise to inspire fear and awe through scenes of accelerated progress, it also deploys noise as laughter in order to overturn traditional hierarchies with the hope of creating a new kind of radically egalitarian community. Such a use of noise challenges Futurist conceptions of the power dynamics of music like those espoused by Luigi Russolo. As Attali points out, noise, as the sonic manifestation of violence, has the power not only to inspire fear and reassure, but also to rupture established codes of order and harmony. When power structures fail, they are overcome by noise, yielding new aesthetic possibilities for establishing order.[43] In the early twentieth century, avant-garde composers and filmmakers sought ways to harness this destructive capacity, tapping into sonically marginalized yet increasingly pressing spheres of modern existence, specifically industry and war. For the Italian Futurists, noise heralded revolutionary change through the pain and fear it wrought directly on the body. This physical sense of cataclysm yielded ecstatic visions of men fused with machines, of the body transformed into metal, and of the violence inherent in matter and the cosmos.[44] By contrast, Vertov, whose Futurist and avant-garde affiliations are well-documented, uses noise in a manner whose function parallels what Mikhail Bakhtin, in "Forms of Time and the Chronotope in the Novel" and *Rabelais and his World*, calls Rabelaisian laugher.

43. Jacque Attali, *Noise*, 31-32.
44. Christine Poggi, "The Futurist Noise Machine," in *The European Legacy* 14,7 (2009): 821-840.

For Bakhtin, such laughter "not only destroys traditional connections and abolishes idealized strata; it also brings out the crude, unmediated connections between things that people otherwise seek to keep separate, in pharisaical error."[45] We see such a dynamic at play in a scene from the sixth part of *Man with Movie Camera* depicting workers in a Lenin club. The scene begins with a famed image of an ear superimposed on a radio receiver, an allusion to what I've called Vertov's Kino-Ear — visible sound. This ear, we are made to understand, is "listening" to the visible representatives of piano, accordion and voice, images of which are also superimposed over the speaker/ear. As this music pours from the speaker, the film cuts back and forth to shots of workers playing checkers. Then, all of a sudden, the montage cuts to a shot of hands playing spoons and bottles. While the "traditional" music plays, the workers continue to play checkers, all but ignoring the music, as though it were hovering in the background. The sound of the spoons, on the other hand, appears to catch their attention. Shots of curious and smiling workers and peasants enter the montage, alternating with close-ups of hands playing spoons, feet dancing a foxtrot, and laughing women appearing to whisper jokes to one another. These images further drive home the theme of the sequence — music, noise, laughter, and communication bringing together spatially disparate areas of life (the montage combines shots from different locations) by means of the radio and the cinematic apparatus. As the music grows to a climax, the frantic pace of the montage increases, amplifying the noise depicted on screen, until it erupts in a superimposed display of spoons, dancing feet, and an accordion.

Here, the idealized strata, to use Bakhtin's terminology, are those which in pharisaical error seek to keep noise separate from music and listeners separate from performers. By contrast, Vertov transforms so-called "noise" as what John MacKay calls the "dishonored perceptual

45. Mikhail Bakhtin, "Forms of Time and of the Chronotope in the Novel," in *The Dialogic Imagination*, trs. Caryl Emerson and Michael Holquist (Austin: University of Texas Press), 170.

world of others" into the collective artistic expression of the urban proletariat[46] — that is, an artistic expression in which, similar to the *Symphony of Sirens*, the proletariat themselves participate. The superimposed image of spoons and instruments draws a connection between "noise" and "music" as discernible elements on a sonic continuum. Neither the former nor the latter are reduced to one another. Instead, they are both sonic phenomena. Likewise, in amplifying the rhythm of the dancing and smiling faces, the visual track imparts to the spectator the other side of noise as violence — that is, noise as laughter and revelry, thereby subverting the very distinction that maintains noise as something violent or threatening. Through alternating displays of noise, music, dance, and laughter, the scene nullifies this distinction, albeit in a way that is nevertheless "organized" through the power of montage and cinematic apparatus (prominently displayed at other points in the film). This organization manifests the ambitions of Vertov's Kino- and Radio-Ear; the organization of audial and visual facts into a "collective sensorium" that is, as it were, non-hierarchical insofar as no fact is subsumed by another. The result is a bacchanal, in which musicians participate along with listeners as part of a collective. Indeed, it is not surprising that this scene follows immediately after the cameraman's trip to a local pub. The connotation is clear: exuberant and joyful proletarian dance should replace alcohol as a way for workers to express their Dionysian urges.

In Jean Vigo's 1930 *À Propos de Nice* — shot by the youngest of the three Vertov brothers, Boris Kaufman — a similar set of Dionysian urges is on display during the penultimate scene depicting the Nice carnival. The film is split into four sections: the first introduces the spectator to Nice, a vacation destination in southern France; the second captures lazing, unaware vacationers; the third highlights the differences between these vacationers and Nice's poor; and

46. John MacKay, "Disorganized Noise: *Enthusiasm* and the Ear of the Collective," Introduction, 4.

the last displays the city's revolutionary energies.[47] The carnival sequence is meant to channel these energies, through expressions of rhythm and dance, into the final scene of the film in which shots of workers' faces alternate with billowing smokestacks (filmed in a manner reminiscent of *Man with a Movie Camera*). In the carnival sequence, we see another technique of sounding the inaudible — slow motion, which adds a ponderous contrapuntal weight to the otherwise lighthearted dancing of the carnival goers (shot kicking their legs can-can style over the camera). This weight carries with it a dramatized sense of the disorder of carnival, as if seeking to capture, frame by frame, the ways in which it undoes classical hierarchies through a mixture of profanation and parody. However, for Vigo, like Vertov and Avraamov, this world was not a dying one, relegated, in the words of Jonathan Crary, "to the terrain of the fairground" and "segregated from the more rationalized economic life of the city."[48] Rather, it still existed in the everyday practices and spaces of disenfranchised classes. Participants in Vigo's carnival (including Vigo himself) all appear as members of subaltern classes in comparison to the stodgy and stolid vacationing bourgeoisie. By giving voice to the former in the form of a carnival, the film seeks to harness their revolutionary potential to level past hierarchies.

Filmed in a society in which, from the point of view of Party dogma, the revolution had already been won, *Man with a Movie Camera*'s display of a "silent" noise orchestra that overturns the distinctions between noise and music, listener and musician, presents a difficulty similar to that which we witnessed earlier (Chapter 1) with respect to Avraamov's *Symphony of Sirens*. This dynamic was related to the problem of worker spontaneity and party consciousness. Namely, the disenfranchised sounds of subaltern groups could not, of themselves, constitute a revolution; instead, they had to be channeled into a composition. In the *Symphony of Sirens*, this

47. For a detailed, close reading of these four sections see Michael Temple, *Jean Vigo* (Manchester: Manchester University Press, 2011), 20-28.
48. Jonathan Crary, "Géricault, the Panorama, and Sites of Reality in the Early Nineteenth Century," 7-8.

idea had two major problems: first, the composer had to choose which subaltern groups and sounds were valid revolutionary subjects for composition; second, these sounds required an apparatus of some kind (the steam whistle machine) to convert them into the music of the revolution. *Man with a Movie Camera* faced a similar dilemma — one for which it did not offer an immediate solution. The sounds of industry and Proletkult noise orchestras are a choice of subject matter that reflect a certain preconception of what it means to be proletarian. This is not to fault Vertov for not having portrayed other sounds, but merely to suggest that the sounds of his choosing were circumscribed by certain ideological limitations and frames of reference that narrowed the scope, as it were, of the carnival. More importantly, these sounds are not noise pure and simple, but must be contained within the borders set by the montage construction of the film and the cinematic apparatus. This leads to an unresolvable tension between noise and the construction of the film that cannot play itself out through the dynamics of catharsis available to Ruttmann's. Not seeking to reimpose an order that connotes safety and the status quo, yet still wishing to create an order that captures the egalitarian and non-hierarchical aspirations of the October Revolution, *Man with a Movie Camera* presents the disorder of noise as itself an order, yet one that must be guided through the right kind of composition.

**IV. Sound and the Line**

The above dilemma regarding how to channel revolutionary energies is another aspect of the tension between stimulation and control that manifests itself through the ways in which the city symphony sounds the inaudible. In this respect, we have analyzed three related practices: 1) the relationship between image track and audio track as a way of organizing audio-visual phenomena; 2) implied sound; 3) the amplification of implied sound using visual techniques.

This section examines a fourth inaudible sound practice related to these three — namely, the expression of visual movements as sonic phenomena in the form of motion intervals and curves. The tracking of audial and visual phenomena as graphically represented movements has its roots in a scientific and psychophysical discourse that stretches back to the 19th century. In previous chapters, we touched on this discourse insofar as it revealed itself in the motion-tracking experiments of Alexei Gastev's Central Institute of Labor and the psychophysical research of the behaviorist, Vladimir Bekhterev. In accordance with the idea of the body as an energy conserving mechanism, these figures — along with those such as Étienne Jules-Marey, Edweard Muybridge, and Frank and Lilian Gilbreth — sought to understand physical and mental properties as expressions of movement whose secrets could be unlocked by representing these movements along a line.[49]

Investigations into the phenomenon of sound followed a similar course (see: Introduction). Indeed, it is here that one may glimpse another way in which the tracking of audial and spatial phenomena as materials intersect. As Douglas Kahn points out, the line is the meeting point of "*audio* ('I hear') and *video* ('I see'):"[50] intersecting sonic lines may be traced back to earliest manifestation of the line in the history of sound — the "single string of the Pythagorean monochord," which became the basis for Western musical intervals, themselves an expression of the harmony of celestial spheres. In modern history, the line became a means of visualizing airwaves of sound as frequency — from Ernst Chladni's 1785 experiments with vibrations reverberating through sand trapped between glass plates to Édouard-Leon Scott's 1857 phonoautograph and Thomas Edison's 1877 phonograph. These practices and technologies

49. With regard to the influence of such motion experiments on cinema see, for instance, Tom Gunning, "Loïe Fuller and the Art of Motion: Body, Light, Electricity and the Origins of Cinema," in *Camera Obscura. Camera Lucida. Essays in Honor of Annette Michelson*, ed. Richard Allen and Malcolm Turvey (Amsterdam: Amsterdam University Press, 2003), 75-90.
50. Douglas Kahn, *Noise Water Meat*, 72.

shared in the long 19th century's enthusiasm for, to use Kahn's phrase, making the "invisible visible."[51]

Making the inaudible audible — a practice that begins with the phonograph's ability to play back drawn sound — manifests itself in the city symphony film as a dynamic inscription through bodies and movements. With regard to sound phenomena, as Kahn points out, the line is more than just a *trace*, a remnant of something that has already occurred. While this is part of its function, the line also contains sound — any number of sounds, from the purest of tones to the harshest of noises. These sounds, in turn, may be reproduced and inscribed — as Evgenia Lineva and Avraamov believed (Ch.1) — on the listener. Why not, then, inscribe movement on the spectator like sound onto the phonographic cylinder? This is precisely the idea behind Vertov's theory of the movement interval. For Vertov, as he states in his 1922 manifesto, cinema is a path "from the bumbling citizen through the poetry of the machine to the perfect electric man" ["от ковыряющегося гражданина через поэзио машины к совершенному электрическому человеку"]. *Man with a Movie Camera* takes the bumbling citizen along this path through representations of human and machine movements, seeking thereby to impose through rhythmic inscription the movements of the latter on the former. The simple representation of movement in-and-of-itself, however, is not the basis of this imposition: "The material — " he writes,"the elements of the art of movement — is composed of the *intervals* (the transition from one movement to another) and by no means of the movements themselves. It is they (the intervals) that draw the action to a kinetic resolution" ["Материалом — элементами искусства движения — являются интервалы (переходы от одного движения к другому), а отнюдь не самые движения. Они-то (интервалы) и влекут действие к кинетическому разрешению"].[52] Much

51. *Ibid*., 75.
52. *Вертов. Д*. "Мы. Вариант Манифеста." Из наследия, 2:17. A translation may be found in *Film Factory*, 71.

has been made of this theory without paying attention to the musical analogy it draws. This analogy, I suggest, may be read in rhythmic as well as tonal terms. Rhythmically, the movement interval expresses a counterpoint between movements — it is the opposition of movements that creates kinetic tension and provides resolution. This resolution, however, is different from the one found in Ruttmann's film — that is, it is not one of tension and cathartic release. By contrast, the Russian word translated here as "resolution" is not meant primarily in its musical sense, but rather as a "solution" to a problem. A "kinetic resolution" means a balancing of complimentary and contrapositive movement intervals — transitions from one movement to the next — and not necessarily the creation of harmony.

On the other hand, tonally, the movement interval expresses the relationship between movements as notes — say C and F#. Vertov organizes movement intervals like notes on a frequency spectrum. In his manifesto, he builds them into phrases and calls for the development of graphic "cine-scales" ["киногаммы"] to notate, not just their rhythm, but their direction as well. In doing so, he draws a historical connection between the theory of the movement interval and later experiments in graphic or drawn sound by Arseny Avraamov. Though he conducted them in the early 1930s — after the period that allowed for such celebrations as the *Symphony of Sirens* had long since passed — Avraamov had been writing and experimenting with graphic sound since the mid-teens. He was one of many now forgotten composers such as Evgeny Sholpo, Nikolai Voinov, and Boris Yankovski who saw in graphic sound a new mode of notation, representation, and amplification that would reflect the plurality of microtones — that is, frequencies or noises — between notes. Proliferating throughout the 20s and 30s, these experiments not only resemble, but in fact constitute a form of abstract film. Indeed, sounds were often drawn in various ways to reflect abstract or representative patterns, similar to those found

in Ruttmann's *Opus* films. Treating movement like sound, Vertov approaches these experiments from the other direction, as it were: not from sound to movement, but from movement to sound. The movement interval is not a representation of audible phenomena but the visualization of movement *as* an audible phenomenon. This constitutes what I earlier called Vertov's Kino-Ear — the organization of the visual, not in terms of the audible — that is, musical organization — but as audible — movement as sound.[53]

If we think of machine movement as a form of visual sound akin perhaps to the actual sounds machines make, then the theory of the movement interval is a means to channel this sound into a set of graphic cine-scales intended for compositions that alter the body of the spectator. This transformation takes place by means of inscription similar to Gastevian experiments at the Central Institute of Labor. The latter sought to train the body, making it a more effective machine through the repetition of movements graphically calculated for maximum efficiency. Likewise, *Man with a Movie Camera* took the paradigm of drawn sound out into the world of actual movements, composed them, and inscribed them on the bodies of film spectators in the hopes of forming them into perfect, electric humans. This is not to say, as some have suggested, that Vertov's film maintains the same level of machine enthusiasm and Taylorist preoccupations as Gastev's institute (not to mention his poetry). Nor is to say the opposite — namely, that the film as a whole represents an "organic unity" or "organic

53. We find a similar idea in Sergei Eisenstein's essay "Synchronization of Senses," in which Eisenstein draws explicit parallels between visual and sonic vocabularies of motion: "From all the plastic means of expression at our disposal we can surely find those whose movement harmonizes not only with the movements of the rhythmic pattern, but also with the movement of the melodic *line*… 'The higher unity' into which we are capable of organizing the *separate tones* of the sound-scale may be visualized as a line that unites them through movement. The tonal *changes* on this line may also be characterized as movement, no longer as an intermingling movement, but as a *vibrating* movement, whose characteristic we can perceive as sounds of varying pitch and tone." For Eisenstein, however, the ultimate visual expression of the vibratory and tonal composition of the musical line is color (Sergei Eisenstein, "Synchronization of Senses," in *Film Sense*, tr. and ed. Jay Leda (San Diego: A Harvest Book, 1947), 84).

continuum" that, as it were, humanizes machines.[54] Rather, the inscription of machine practices onto the body through rhythmic comparisons of the two points to an underlying tension between these terms — one that persists, in contrapuntal fashion, throughout the film. Just as the film's "organic" conception is impossible without the "mechanical" apparatus, so is its presentation of machine movements (e.g. the camera eye) impossible without reference to the human (the human eye). Neither movement is reducible to the other, nor are the two quite the same thing. In other words, comparisons of machine and human movements — e.g. of a woman repeatedly shaping cigarette cartons or of a walking, bowing, bathing camera — cannot be made without remainder. This tension — as we saw in Brecht's *Lindberghflug* — is a salient feature of the mutually constitutive interaction of human and machine metaphors. In *Man with a Movie Camera*, it manifests itself as the difficulty of achieving a satisfactory "kinetic resolution" between human and machine — one that mirrors the difficulties of conceiving the body as an energy saving machine.

In Ruttmann's *Berlin*, lines of movement play a similarly productive role, albeit with regard to a different project — that of managing "information flows," as opposed to transforming the body. As Michael Cowan points out, for Ruttmann, film art needed to develop its own language of movement in order to manage the rush of images in modernity. In an oft-quoted passage from "Painting with Time," Ruttmann writes:

> [A]s a result of the increased speed at which individual data is cranked out, the gaze is now diverted from individual contents to the overall trajectory of a curve formed from the various points, a phenomenon that unfolds in time. Thus the object of our observation is now temporal development and the physiognomy of a curve caught in continuous transformation, and no longer the static disposition of individual points.
>
> "[I]nfolge der erhöhten Geschwindigkeit, mit der die Einzeldaten gekurbelt werden, [wird] der Blick von den einzelnen Inhalten abgezogen und auf den Gesamtverlauf der

54. For a summary of arguments on both sides see Malcolm Turvey, *The Filming of Modern Life: European Avant-Garde Film of the 1920s* (Cambridge: MIT Press, 2011), 135 - 163.

> aus den verschiedenen Punkten gebildeten Kurve als eines sich zeitlich abwickelnden Phänomens gelenkt. Das Objekt unsere Betrachtung ist also jetzt die zeitliche Entwicklung und die in stetem Werden begriffene Physiognomie einer Kurve und nicht mehr das Starren Nebeneinander einzelner Punkte.[55]

According to Cowan, "Ruttmann's motivation for temporal abstraction was not to isolate trajectories of movement for study in a static image, but to create a new vocabulary of abstract movement patterns unfolding in time." These patterns could be "'wave-like' (wellenförmig), 'dance-like' (tanzartig), 'snake-like' (schlangeartig), 'galloping' (gallopierend), 'raging' (tobend),"[56] and so on. However, contrary to Cowan's suggestion that these forms do not primarily concern music or musical film as an "abstract art," the above analysis suggests that these forms are musical precisely in the way that they synthesize visual information. In modernity, the previously slow pace of visual information approaches that of sound due to the "increased speed at which individual data is cranked out." The rapidly shifting and ever-developing perspectives that constitute city life is a prime example of this phenomenon. For Ruttmann, this stream of visual information cannot be apprehended in a single glance; rather, it must be formatted into sound-like curves. That is to say, without the curve, this information cannot signify anything — it is noise. On the other hand, the curve, like the motion-interval, allows one to explore the relationships *between* images in time, and not just the images themselves.

This parallel between visual and audial discourses on information and noise — as both signal-to-noise ratio and the musical containment of noise — plays itself out through various scenes in *Berlin* — through the shapes and figures that we haveve already examined, but also as a form of inscription to which we may briefly turn. Motion curves, movement intervals, and frequency spectrums were all related to the 19th century discourse of psychophysics — the idea,

55. Quoted in Michael Cowan, *Walter Ruttmann and the Cinema of Multiplicity*, 48. Translation Cowan's.
56. *Ibid.*, 48-49.

in Cowan's words, "that the sight of movement could provoke a tendency toward counter-movements within the spectator."[57] This idea, as we've seen, had its audial dimension as well. For Avraamov, it manifested itself in his conception of the *Symphony of Sirens* as a tremendous inscription machine, designed to localize music in the hearts of all Soviet citizens. Likewise, for Brecht, this idea presented itself through his musical theory of *gestus* — the notion that just as certain thoughts lead to gestures, so certain gestures can lead to thoughts. The idea also appears in Soviet theories of montage, particularly Eisenstein's notion that montage could lead, ladder-like, from engendering movements in the spectator to causing certain thoughts.[58] For Ruttmann, as well as for these diverse figures, the attraction of psychophysical films was the possibility of developing ideas in the spectator without the presentation of psychological "content."[59] In other words, the proper ideas, movements, and attitudes, could be written on the spectator or listener directly without having to demonstrate them through the mimetic depiction of actors having those same thoughts and ideas.

Such a notion draws a parallel between visual arts and music insofar as the latter impresses the listener while foregoing the psychological. This is not to say, however, that music is an art form that is inherently devoid of psychological content — e.g. the presentation of figures having thoughts and so on. Such a presentation is certainly possible through the use of leitmotifs, typically in conjunction with narrative or dance, albeit not necessarily. However, for the above figures, music and musical analogies provided a way of thinking about visual information *as* relational — e.g. the relationship between notes and rhythms. This relationship was expressed along the figure of the line as a productive form of inscription — one that was not

57. *Ibid*., 31.
58. Sergei Eisenstein, "Methods of Montage," in *Sergei Eisenstein*: *Film Form*, tr. Jay Leyda (San Diego: A Harvest Book, 1977), 77-83.
59. Michael Cownan, *Walter Ruttmann and the Cinema of Multiplicity*, 31.

the trace of a thought (as in writing) but productive of thoughts as movements of the body. In sounding the inaudible, Vertov and Ruttmann's films present visual information, specifically movement, as sound, either as a dynamic between noise and music, or as one between rhythms. Doing so allowed them to impress certain regimes of thinking and movement on the spectator while foregoing ideational content.

**V. Time and Space**

Perhaps no aspect of Vertov's and Ruttmann's films exemplifies the way in which they impress certain regimes of movement and thinking better than the manner in which their ability to sound the inaudible handles the presentation of time and space. Music in general, and the city symphony in particular, regulates our impression of time through the development of rhythms and sound figures (movements in time) that govern the pace of daily life. The city symphony adds a spatial dimension to this musical regulation of temporality insofar as linkages between spaces constitutes its movement of time. In this regard, *Berlin, Symphony of a Big City* and *Man with a Movie Camera* provide an excellent contrast. As we saw above, Ruttmann's film plays the classical game of power as described by Attali's theory: it deploys audial and visual noise as a controlled shock to the system through its use of abstract musical forms. In contrast to Kracauer's assertion that *Berlin* merely reflects the social life of the city, I argued that this musical game was in fact productive of social life insofar as it sought to structure a managed social environment by means of stimulation and control. Nevertheless, in structuring time and space, *Berlin* remains true to Kracauer's criticism. Its temporality is an empty one in which time is an open space for the occurrence of simultaneous events.[60] Such a conception, to quote

60. Benedict Anderson, *Imagined Communities*: *Reflections on the Origin and Spread of Nationalism* (London: Verso, 1983), 24.

Benedict Anderson, recalls Benjamin's idea of a "'homogenous, empty time,' in which simultaneity is, as it were, transverse, cross-time, marked not by prefiguring and fulfillment, but by temporal coincidence, and measured by clock and calendar."[61] Ruttmann's comparisons of movement and rhythm suggest this conception of time throughout the film.

By contrast, Vertov's *Man with a Movie Camera*, in presenting ecstatic visions of electrified men and women working at tempos beyond human capacity, attempts to usher in a new sense of revolutionary time, one that structures time and space as the products of collective effort. These dimensions are full insofar as they present spatially and temporally disparate events as part of a fabric in which all moments are audibly and visually related to one another by means of the cinematic apparatus — that is, by means of both Kino- and Radio- Eye and Ear. Such an organization of the audio-visual world forms a single, overarching project — the building of communism, which the film announces in somewhat messianic terms with the sped-up swinging of a pendulum.

To move from general to particular, with regard to *Berlin*, there are two specific ways in which Ruttmann constructs an empty sense of time and space: the first is by a comparison of rhythms across space; the second is by use of shape-tones to control the flow of time. As Carolyn Birdsall notes, *Berlin*'s presentation of "the various rhythms of the day reflect Ruttmann's conviction that modernity is a break with the past and speeds up temporality, most notably through media technologies and the rapid dissemination of information."[62] For Ruttmann, film was uniquely suitable for capturing this sped up temporality not only on account of its ability to iconically capture the "real," but due to its ability to capture the movement of visual information. At the same time, this ability to render modern pacing through fast editing and motor-like

61. *Ibid*. Anderson takes the notion of a 'homogenous, empty time" from Walter Benjamin, "These on the Philosophy of History," in *Illuminations*, tr. Harry Zohn (New York: Schocken Books, 1968), 265.
62. Carolyn Birdsall. "Resounding City Films," 31.

rhythms often comes into conflict with the film's natural frame — sunrise to sunset — thereby evoking a tension or sense of unease with regard to the pace of modernity — hence the idea that the pace of modernity breaks with the past. One way to understand this tension, I suggest, is as a kind of rhythmic counterpoint or *isorhythm* in which two different rhythmic structures — here, the pace of "natural" time and that of modern technology — beat simultaneously. The tension and resolution of this isorhythmic polyphony, particularly in episodes depicting transition such as the awakening of the city, forms part of the *Berlin*'s musical dynamic.

In his seminal essay, "Time, Work-Discipline and Industrial Capitalism," E.P. Thompson locates this tension between natural and mechanical time at the heart of modernity. Simply put, without the mechanical clock, Thompson argues, the industrial revolution and modern capitalism would not have been possible, since, more than any other violent or economic compulsion, it was the clock that made synchronization of labor possible.[63] Episodes of such synchronized labor abound throughout both Ruttmann and Vertov's films, not only as the synchronized movements of humans and machines within a single space — e.g. a lightbulb factory (Ruttmann) or a steel forgery (Vertov) — but also across different spaces — e.g. when the rhythms of the lightbulb factory are juxtaposed with those of a bread-making plant (Ruttmann) and so on. In *Berlin*, this comparison of analogous rhythms has been typically understood as a manifestation of the New Objectivity genre of the cross-section film [Querschnitt] — a genre that sought to portray the city in terms of paradigmatic relationships (cross-sections) across space and time. The criticism generally levied against this genre is that it eschews conflict in favor of a statistical image of regularity: "this is what people in the city — the 'average man' conceived of as mean value of many people — do during their lunch break,"[64] during work hours, or during leisure hours, etc.

63. E.P. Thompson, "Time, Work-Discipline, and Industrial Capitalism," in *Past and Present* 38 (1967): 56-97.
64. Michael Cowan, *Walter Ruttmann and the Cinema of Multiplicity*, 78.

While partially true, this criticism misses the conflict that arises between these comparisons, not just as a conflict between classes — e.g. the poor at rest and the rich at rest — but as a conflict of rhythms.

In *Berlin*, this conflict sounds like two periodic frequencies — the human and the machine — beating against one another. As with audial noise, it is when the two visual rhythms come closest to one another that they reach their maximum potential for violence. This occurs during scenes of work, particularly those that juxtapose human and machine movements. For instance, in a scene depicting laborers going to work, the montage generates a feeling of unease, even suspense, through constant reference to the automatization of workers' movements, particularly the way in which they walk. Workers are juxtaposed with soldiers, mannequins, and cattle (here portrayed in an industrial as opposed to bucolic manner). The natural rhythm of walking, however, still remains in the background. The two rhythms work against one another, creating tension, particularly in conjunction with the previous sequence in which the city is shown awakening at a pace that follows the sunrise.

Unlike Vertov, Ruttmann did not seek to impose the rhythm of machines on human beings in the hopes of creating a more perfect electric man; nor did he seek to create an image of the city (and state) as a bio-mechanically interrelated organism. Rather, his rhythmic comparisons reveal a certain amount of discomfort with modernity, one that perhaps might be best summed up in terms of a discourse that haunts early cinema. This discourse surrounds Freud's notion of the uncanny as well. Cinema's earliest manifestations were greeted with enthusiasm and cheers of progress, but also with feelings of deep unease insofar as they portrayed human beings in a state of lifeless motion. In 1896, after a presentation of the Lumière Cinematograph, Maxim Gorky declared, "[y]esterday I was in the kingdom of shadows. If only

you knew how strange it is to be there. There are no sounds, no colours. There, everything — the earth, the trees, the people, the water, the air — is tinted in a grey monotone…This is not life but the shadow of life and this not movement but the soundless shadow of movement."[65] By 1927, when *Berlin* premiered, spectators had grown accustomed to this kingdom of shadows. Nevertheless, the film underscores a lingering uncanniness insofar as no movement within it feels entirely natural or mechanical. In other words, the problem was not that these movements were soundless, but rather that they reminded spectators of a previous, atavistic era of silent film. In a year that also marked the first sound film — Alan Crosland's *The Jazz Singer* — viewers were treated to a spectacle of motion in which they once again came face-to-face with the mechanical motion that paralleled the mechanized lifeless flicker of human beings on screen.

The conflict of mechanical and natural rhythms throughout *Berlin* articulates a spatial and temporal structure that is empty. This structure is characterized by cross-sectional comparisons of rhythms that yield conflicts characteristic of modernity but that do not go beyond the presentation of seemingly simultaneous events. In this sense, the criticism of cross-section films as simply registering impressions of the city is accurate, so long as we keep in mind that such a registry of impressions is calculated for an effect. As a cross-section film, *Berlin* does not so much register simultaneous appearances as create the preconditions for their appearing. In this regard, the film's shape-tones help marshal visual information in a manner that allows it to appear evocative of different parts of the day. In this sense, the film functions like a newspaper, particularly in the way that it constitutes space and time through the audial-visual linking of oftentimes unrelated events. "The date at the top of the newspaper," writes Benedict Anderson, "[is] the single most important emblem on it," since it "provides the essential connection"[66]

65. Maxim Gorky, "The Lumière Cinematograph," in *Film Factory*, 25.
66. Benedict Anderson, *Imagined Communities*, 33.

between the events on the page. Like a newspaper, *Berlin* assembles the various events of daily life within a fictional spatial and temporal frame, the day in the life of a city. Its counterpuntal rhythmic structure articulates a space in which natural and mechanical rhythms interact without thereby constituting time. Likewise, the film's economy of abstract shapes manages the shocks of the day through tension and resolution.

There is perhaps no better place to see this dynamic at work than in the film's own newspaper sequence. In this scene, we get a further sense of time's emptiness as repetition, here seen as the proliferation of newspapers. As the sequence progresses, we hear the sounds of printing presses, the thump of newspapers, and the shrill voices of newspaper vendors. Our shape-tones are also present in this sequence — in the rolls and streams of newspaper and in the streaming lines of newspaper text[67] that blur like the railroad tracks we saw earlier. Again, these shape-tones create, amplify, and control noise as information overload through the film's visual track. They also reflect the repetitive nature of newspaper production and consumption — the same morning and afternoon ritual — in the repetition of shots and the use of circular imagery. The latter suggests a connection between the chaotic and the repetitive. Recall, for instance, the secretaries, engaged in the repetitive task of typing up someone else's memos, or the repetitive, circular motion of machines; recall the rollercoaster ride, delivering the repeated ups and downs of inflation, or the cyclical nature of the film's temporal frame — morning, noon, and night — further emphasized by shots of nighttime revelers returning in the early morning; recall the circular motion and subjective perspectives of the suicide sequence, followed by the reimposition of linear order; all these form an image of the city as a chronotope of repetition, one in which the shocks of modernity are tamed as daily life. In Attali's terms, such an image of the city "heralds the ideology of [a] repetitive society, the simulacrum of the decentralization of power, a

67. Michael Cowan, *Walter Ruttmann and the Cinema of Multiplicity*, 57.

caricature of self-management."[68] Put another way, in sounding the inaudible, Ruttmann's film presents society as an automata in which progress is assured as controlled growth.

By contrast, though it appears to use many of the same techniques — for instance, a rhythmic counterpoint between human and machine movements — Vertov's *Man with a Camera* articulates a different sense of space and time, one that I earlier characterized as full. Film scholars often overlook the fact that, for Vertov, mechanical temporality is anything but the steady beat of machines. In fact, for him, machines are far more flexible than humans; their movements "curve, straighten out, divide, split, multiply again and again ["искривляются, выпрямляются, делятся, дробятся, умножают себя на себя"],[69] all with a grace of control that makes Vertov "ashamed of humanity's inability to control itself" ["Стыдно перед машинами за неумение людей держать себя"].[70] By composing these movements, the movement interval creates the sense that time itself is malleable material: "Drawing in motion" ["Рисунки в движении"], Vertov writes, "Blueprints in motion" ["Чертежи в движении"]. These manifest "the theory of relativity on the screen" ["теория относительность на экране"].[71] Such a conception of time is full in two senses: first, insofar as it is the product of a technical intervention — the camera; second, insofar as this technical intervention reflects the collective labor of the community. With regard to the former, *Man with a Movie Camera* shows that time is itself workable material and that "natural" or "linear" time is a fiction: "The Kino-Eye," Vertov writes, "is the concentration and decomposition of time" ["Кино-Глаз — это концентрация и разложение времени"].[72] With regard to the latter, the film shows that such time is the product of collective connection across space: "The Kino-Eye means the overcoming of space — it is

68. Jacque Attali, *Noise*,114.
69. *Вертов. Д.* "Мы. Вариант Манифеста." Из наследия, 2:17. A translation may be found in *Film Factory*, 71.
70. *Ibid.*, 16 / 71.
71. *Ibid.* 16/71
72. *Вертов, Д.* "Что такое Кино-Глаз." Из наследиа, 2:160.

visual connection between the people of the whole world on the basis of an immediate exchange of visual facts,…" ["Кино-Глаз — это преоделение пространства — это зрительная связь между людьми всего мира на основе непрерывного обмена видимыми фактами,…"].[73] As such, the film articulates a spatiotemporal plane in which empty simultaneities cannot exist since all efforts are coordinated in and by means of the cinematic apparatus.

That such a conception of space and time is reminiscent of the avant-garde poetics of ecstatic materialism (Ch.1) should not come as a surprise. The goal of Vertov's film practice is not merely the analysis of facts, as is commonly supposed;[74] rather, like Avraamov, Vertov sought to realize a utopian future in the present through the manipulation of space and time as materials of the everyday — streets and squares. In this respect, let us take the second conception of full time first — the idea that time is the product of collective effort. There is no "meanwhile" in such a time — no empty simultaneities — since all people are related *through* its production. *Man with a Movie Camera*'s technical intervention into time and space articulates this idea in the figure of the cameraman as the embodiment of the collective. More than a means of "laying bare the device of cinema,"[75] the cameraman represents a collective effort of organizing visible and audible facts as materials for the construction of an ordered and interrelated world. The film's contemporary critical reception not only reflects, but in fact heralds this idea. In a prescient criticism of Vertov's previous film, 1928's *Eleventh Year,* the Soviet critic, Konstantin Feldman, wrote that "…in the rhythm of the moving shots the viewer does not for a moment stop sensing

73. *Ibid*., 159. In "Metabiotic State: Dziga Vertov's *The Eleventh Year*," Devin Fore translates the Russian word "связь" (connection) as 'bond,' implying that, for Vertov, the cinema was a means of "connecting and binding substances" (Devin Fore, "Metabiotic State: Dziga Vertov's *The Eleventh Year*, in *October* 145 (2013):3). While such a translation is possible, it is inaccurate insofar as it suggests that the Russian word may be used in the chemical of physical sense of bonding. In both everyday and scientific senses, the word "связь" means "to connect" — as in the Randy Travis lyric, "Operator, please 'connect' me to 1982" (Randy Travis, "Operator, Please Connect me to 1982," *I Told You*: *The Ultimate Hits of Randy Travis*.
74. James Donald, *Imagining the Modern City*, 79.
75. *Ibid.*

the presence of a collective man, whose powerful organizing force controls all this mass of things, earth, and elements, directs their movement towards a single goal, creates order out of chaos."[76] This analysis is prescient insofar as the film Feldman is analyzing does not feature a cameraman; rather, the cameraman's presence is intuited from the montage. In this articulation, the cinematic apparatus channels collectivity through the connections it facilitates. The cameraman emerges from these connections, even if he is not present on screen.

Of course, this does not change the fact that, once on screen, he cuts a rather totalitarian figure. Towards the end of the film we see him superimposed from above, pointing his lens into the many facts of life that rush beneath his feet and tripod. This image contradicts, to a certain extent, the "other" cameraman, Vertov's brother, Mikhail Kaufman, often shown filming events on the ground. In the film we see him climbing up smoke stacks and bridges, riding on top of trains and being trampled beneath them. As such, he stresses the importance of mobility in relaying images across the Soviet Union. Focusing on him we see that these distances are not magically connected together; rather, they are the result of a process that involves the effort of people and machines. The tension between these two views — the stationary view from above and the mobile view from below — is also present in Vertov's notion of the Radio-Eye, particularly as it is figured in his first sound film, *Enthusiasm: Symphony of the Donbass* (1931). That film traces various sites of coal and electricity production across the Donbass region in Ukraine within the frame of transmitting sights and sounds across the Soviet Union. With regard to the production of this film, in a 1930 speech to the First All-Union Conference on Soviet Sound, Vertov described two modes of recording documentary sounds on location that strikingly parallel the view from above and the view from below. To record live sounds, Vertov stated, one

76. Konstantin Feldman, "Vertov and Ruttmann," in *Lines of Resistance*: *Dziga Vertov and the Twenties*, ed. Yuri Tsivian, tr. Julian Graffy (Sacile: Le Giornate del Cinema Muto, 2004), 386.

could either use a mobile system in the form of a "specially adapted sound-recording cinema-vehicle (like an ambulance or fire engine)" ["спецально приспособленный звукосъемочный киноавтомобиль (сравните: автомобиль скорой помощи, пожарный автомобиль)"] or one could use stationary equipment, consisting of a "far-flung network of microphones" ["с расветвленной сетью микрофонов"]. A stationary system, he thought, "would be much more flexible than a mobile sound unit, just as a vast power station with a network of lines is more flexible than a mobile generator" ["Так же, как крупная электрическая станция с сетью проводов подвижнее электрической передвижки"].[77] While he practiced the latter, mobile method, it is clear that Vertov preferred the former stationary model.[78] We see it figured in *Enthusiasm* in the signal-and-receiver-like interaction between telegraphs, conveyor belts, whistles, and workers, as well as in the film's theme — the generation of electricity for the Soviet Union.

The tension between stationary and mobile methods of audial and visual production — of linking times and spaces — is significant insofar as the ecstatic materialist poetics of both *Man with a Movie Camera* and *Enthusiasm* are reminiscent of the logic of Stalin's Five-Year Plan. Announced during the production of *Man with a Movie Camera*, the plan combined utopian aspirations with a war economic mentality. In attempting a radical break with the past, it sought

77. *Вертов, Д.* "Доклад на Первой Всесоюзной производственно-технической звуковой конференции Союзкино." Из наследия, 2:202-3. A translation may be found in *Film Factory*, 304-5. Translation modified.
78. Vertov goes on to speak of the mobile method as a temporary solution: "An adequately equipped vehicle, as described above, is feasible to resolve the immediate problems of location shooting in the narrow sense of the word. But it is not adequate if we are talking about location shooting in the broad sense of the word, on the level of the "Radio-Eye's' general prospects, and we shall have to orientate ourselves beyond the mobile film unit to the sound-reproducing radio station" [Если говорить о наружной съемке в узком смысле этого слова, то для разрешения ее ближайших задач возможен достаточно оборудованный, как описано выше, автомобиль. Если говорить о наружной съемке в широком смысле этого слова, если говорить о наружной съемке в плане ченеральных перспектив 'Радио-Глаза,' то этого недостаточно и нам надо оринтироваться помимо передвижки на звукозаписываюшую радиостанцию"] (*Ibid*).

not to modernize in time, but to modernize time itself through scientific planning.[79] Such an idea also recalls the poetics of ecstatic materialism as a utopian realization of the future through the materials of the present. In sounding the inaudible, *Man with a Movie Camera* both manifests and undermines some of the plan's fundamental ideas. First and foremost, there is a fundamental ambiguity in the network conception of the Radio- and Kino-Eye between the cinematic apparatus as an egalitarian manifestation of the collective and the apparatus as an instrument of domination. More than just another way to say sound cinema, Vertov envisaged the Radio-Eye as "an opportunity for the proletariat of all nations and countries, regardless of distance, to see, hear, and understand one another" ["Радио-Глаз — это возможность пролетариям всех нации и всех стран, назависимо от расстояний, видеть, слушать, и понимать друг друга"].[80] In his many formulations, he presents the Radio-Eye as emerging from, rather than simply facilitating these connections across time and space. At the same time, as we saw above, Vertov conceived of such an apparatus as ultimately extending to tactile and olfactory senses, as well as experiments in the direct organization of people's thoughts. The radio-eye thus upsets one of the fundamental tenants of the Five-Year Plan — socialism in one country — while simultaneously envisioning a global network of interconnected brains expressing a single will.

A similar tension is in fact reflected in Vertov's theory of the movement interval: while such movement liberates humanity through the dynamism of machines, it does so only through strict control. This tension points to the second manner in which *Man with a Movie Camera*'s both realizes and breaks with the logic of the Five Year Plan. On the one hand, its imposition of machine time announces both a radical break with the past, as well as the possibility of

79. For a detailed account of the pace of this planning in terms of a single project see: Stephen Kotkin, "Magnetic Mountain: Stalinism as a Civilization" (Berkeley: University of California Press, 1995).
80. *Вертов, Д.* "Доклад на Первой Всесоюзной производственно-технической звуковой конференции Союзкино." Из наследия, 2:202. A translation may be found in *Film Factory*, 303.

collectively structuring time as material. On the other hand, the film undermines the idea that such temporal structuring has to take a linear form in order to be called progress, thus upending the kinds of traditional hierarchies the Five-Year Plan sought to reimpose. This dynamic becomes apparent in the way the film *departs* from linear temporality, particularly in segments that make use of reverse, frozen, and sped up motion. One way to view the film is as an increasing progression of such temporal breaks. In this respect, the film begins subtly with a shot of pigeons flying in reverse and slow motion — the graphic equivalent of a crab canon in which the same melody is played forward and backward simultaneously. This figure announces a break with the temporality of "nature," which the film exposes as an artificially imposed linear time. The next major segment is that of a running horse whose movements are decomposed into individual frames recalling Muybridge's photographs. Unlike Muybridge, however, Vertov does not stop time in order to better understand the horse's movements; rather, he takes the opportunity to investigate the relationship between this frozen frame and others throughout the film, zooming us all the way out to Elizaveta Svilova's editing studio before returning to the horse's gallop. Lastly, in the final segment of the film, these techniques return in a symphonic restatement of the film's main themes at greater amplitude and intensity (*presto*). Two counter-rotating shots of the Bolshoi Theater in Moscow cause the building to implode, signaling a break with the cultural past. Next, a shot of a pendulum swinging in fast motion announces the speeding up of the time that follows. In this sequence, noise appears both in terms of visual reference — the movement of the pendulum recalls the ringing of an alarm clock — and visual effect — the speed of montage, ripping us out of the linear temporality of the everyday. Yet at the end of the film, the original temporality is not restored; disorder is not provoked so that the original order may be reimposed. Instead, the new, chaotic temporality takes the place of the old, ushering in an era of

accelerated progress, in which, recalling the logic of the Five-Year Plan, the pace of production will overtake time itself.

There is thus a fundamental ambiguity in Vertov's presentation of time and space. To be sure, both are materials whose manipulations are subject to regimes of observation and scientific planning, particularly in the interest of coordinating efforts for the sudden advancement of society — a Great Leap Forward, as it were. At the same time, as Devin Fore has pointed out, these various spatiotemporal "flections" create an image of urban life that is anything but linear, thus undermining the Five-Year Plan's narrative of progress. Indeed, in subverting linear temporality, as well as its three-dimensional analog, Euclidean space, the film undermines the very temporal and spatial foundations on which the Five-Year Plan is built. As instances of the movement interval, the above segments stop, reverse, repeat, slow down, and speed up motion in order to demonstrate that time as well as space is a "heterogenous and fundamentally plastic field of investigation."[81] In Ruttmann's term, this tension between linear and non-linear time — as well as Euclidean and non-Euclidean space — might be restated as one between order and chaos — linearity and circularity. Ruttmann attempts to resolve this problem in the idea of the repetitive society — society as an automaton of controlled growth. Vertov, on the other hand, exacerbates it, stretching it to the point of annihilation. The film's concluding scene accelerates montage — the pace of progress — but only to recapitulate the entire film; the film masters time, only to send it streaming in the opposite direction. In this sense, the film does not resolve this tension, but rather, in a manner similar to Rabelaisian laughter, connects those sides — future and past, progress and regress — that we would rather keep separate.

81. Devin Fore, "Metabiotic State," 6.

## Conclusion

In sounding the inaudible, Vertov and Ruttmann both designed soundscapes that utilized techniques available to a silent film practice. More than just implied sound, these techniques included the interaction between visual track and audio track, the use of variable editing speeds to emphasize on screen sounds, and the figuration of sound as shape, line, and rhythm. Together, these techniques created a sonic field in which the emotions of spectators could be aroused in a cathartic play of tension and release, or as a leveling attack of noise and laughter that sought to demolish pre-established hierarchies of sound. With regard to the former, seeking to both inspire fear and reassure, Ruttmann's tone-shapes marshaled the energies contained in city life through a dynamic of stimulation and control. With regard to the latter, what I've called Vertov's Kino-Ear, like Avraamov's *Symphony of Sirens*, sought to channel the Dionysian energies of the proletariat into a form of collective noisemaking, albeit one that was tightly controlled by the cinematic apparatus. The use of sound figures such as motion curves and movement intervals, in accordance with contemporary investigations into psychophysics, also sought to inscribe desired movements, attitudes, and comportments directly onto the spectator. In this respect, for both Ruttmann and Vertov, the line did not function merely as the *trace* of a sound or idea, but as a productive means of engendering an idea while foregoing the representation of its psychological content. Lastly, in the interaction of inaudible sound techniques — that is, in the creation of certain regimes of movement — Vertov and Ruttmann's films constructed a spatiotemporal image of the city with global implications, particularly for Vertov who saw cinema as a means of connecting human beings across space and time. In this regard, Ruttmann's film did not merely reflect a space and time consisting of empty simultaneities, but actively constructed it. By

contrast, Vertov's film established a spatiotemporal plane that was full insofar as it presented all audio-visual facts as part of a single project related by means of the cinematic apparatus.

Nevertheless, regardless of whether their presentations of time and space were empty or full, both Ruttmann and Vertov's films manifested similar aspirations for how technology — particularly cinema and radio — could structure the world, either by means of managing and distributing energies or by organizing audio-visual phenomena. In concluding, however, we should note that not all city symphony films had similar aspirations. For all its impressions of Paris, for instance, Cavalcanti's *Nothing but Time* ultimately lamented the unconquerable nature of both time and space. In two inter-titles — separated by crossfading shots of a spinning globe, the hands of a clock, and a woman bouncing a toddler — the film states, "[w]e can fix a point in space to freeze a moment in time…but space and time both elude our grasp" ["Nous pouvons fixer un point dans l'espace, immobiliser un moment dans le temps…mais l'espace et le temps échappent tous deux à notre possession"]. Not so for Ruttmann and Vertov; both were fundamentally opposed to such a lament: "With unending malice and inflexibility, Berlin tried to escape my relentlessness objective" ["Mit unendlicher Tücke und Sprödigkeit versuchte Berlin sich der Unerbittlichkeit meines Objektivs zu entziehen"], Ruttmann stated in an interview with Licht-Bild-Bühne.[82] "The Kino-Eye," Vertov proclaimed, "means the overcoming of time — a visual connection between phenomena that are temporally remote from one another" ["Кино-Глаз — это преодоление времени — зрительная связь между отдаленными друг от друга во времени явлениями"].[83] For the two filmmakers, the camera was a means not just to capture the spatiotemporal image of the city, but to articulate novel relationships of space and time that could be applied to the world. Both sought to grasp space and time and bend them to their idea of how

82. Ruttmann, W.: Wie ich meinen BERLIN-Film drehte. In: Goergen, J.: Walter Ruttmann. Eine Dokumetation. Freunde der Deutschen Kinemathek. Berlin: 1989. p 80.
83. *Вертов, Д.* "Что такое Кино-Глаз." Из наследия, 2:160. Quoted in Devin Fore, "Metabiotic State," 7.

the world ought to be. From the foregoing, I hope to have shown the integral role that sound played in this project.

## Conclusion: 1931

The concluding year of this study — 1931 — marks the end of a particular phase in the history of the city symphony. In 1929 Ruttmann's film, *Melody of the World,* debuted at the same festival as Bertolt Brecht's *Lindbergh's Flight,* followed by a theatrical release in 1930. Shortly thereafter, in 1931, Vertov's *Enthusiasm*: *Symphony of the Donbass* made a short-lived appearance on several screens in Germany and the Soviet Union to international acclaim as well as domestic disapproval. Both films cut on-location sound using techniques that echoed their previous films' visual editing methods. Reflecting the findings of the September 1929 Congress of Independent Film — held in Switzerland at the Chateau de la Sarraz and attended by cinema luminaries such as Alberto Cavalcanti, Sergei Eisenstein, and Béla Balázs — Ruttmann's film sought to compose a counterpoint of sights and sounds that gave the impression of a global community related by similarities between various day-to-day activities.[1] At the same time, the film used this contrapuntal technique to present the global vision of its commissioner, the Hamburg-Amerikanische Packetfahrt-Actien-Gesellschaft (HAPAG), a shipping consortium that was the largest in the world at the time. This vision was one of world-wide frictionless commerce and circulation — a global peace in which smiles, yelps, rhythms, and daily practices of all sorts made their way around the world like packaged goods.

The film reflects a logic of equivalencies — a smile for a smile; a cry for a cry — that Tom Gunning, following the work of Georg Simmel, locates at the heart of a number of modern *topoi* of circulation — from railroad networks to the paths of photographs.[2] What makes this *topoi* particularly utopian is its emphasis on the instantaneous nature of the exchange. Like

1. See Thomas Elsaesser and Malte Hagener. "Walter Ruttmann: 1929," in *1929 Beiträge zur Archäologie der Medien*, eds. Stefan Andriopoulos und Bernhard J. Dotzler (Berlin: Suhrkamp, 2002), 317-349.
2. Tom Gunning, "Tracing the Individual Body: Photography, Detectives, and Early Cinema," in *Cinema and the Invention of Modern Life*, eds., Leo Charney and Vanessa R. Schwartz (Berkeley: University of California Press, 1995).

money, the film presents this system in its own utopian manner, one in which all books are balanced and all exchanges are made without borders or remainders. Nevertheless, the film also manifests these remainders — the fact that exchanged images and sounds are not equivalent — through the contrapuntal conflict between them — for instance, in the way that a scream tears through a sequence, causing it to grind to a halt, or in the way a sudden change in rhythms interrupts the flow of music. Both ideas are present in the film, leading to a tension between its totalizing conception of the world and the gathered fragments of sights and sounds that compose it.

This tension, as I hope to have shown, is one of the defining marks of the city symphony in the period covered by this dissertation. It appears in Vertov's *Enthusiasm* as well, albeit from another angle. Instead of a system of equivalencies, Vertov's film, as I argued above, depicts the Soviet Union as an interrelated network — an expanded sensorium of sights, sounds, and even thoughts. In this sensorium calls and responses, commands and their fulfillment are sent across the Soviet Union on the model of a vast power station — again without remainder. No sooner does a worker promise to fulfill her quota ahead of schedule than a machine springs into action; no sooner do machines complain of a lack of coal than workers rise to fulfill the shortage. This *topoi* of circulation is different from Ruttmann's insofar as it is not the logic of money — the logic of equivalence — that dictates the exchange of sights and sounds; rather, it is the logic of a single project in which all efforts must be calibrated perfectly (as in a machine) in order to guarantee success. Again, the contrapuntal aesthetics of this project's depiction bely a tension between the totalizing conception and the gathered fragments — one that, as I argued in Chapter Two, is at the heart of the *Gesamtkunstwerk.* The conflict between sights and sounds disrupts the homogeneous aspirations of the project as a whole while nevertheless being a necessary element

for the project's fulfillment. This element of conflict is necessary because without it the gathered presentation of the film — the fact that these are sight and sounds collected from different parts of the Soviet Union and related to one another — would suffer.

Ruttmann and Vertov's films mark the end of an era in which the city symphony envisioned a world-wide community related by audial and visual practices. Such a global aspiration would continue to define future city symphony films, though their emphasis on uniting the globe as a polis would change. This change was in part due to the fact that after Ruttmann and Vertov the city symphony genre had become rather hackneyed. Writing in 1935 about his experience as a film contest judge, the famed documentary theorist, John Grierson, lamented that

> [i]n fifty scenarios presented by [young filmmakers], forty-five are symphonies of Edinburgh or Ecclefechan or of Paris or of Prague. Day breaks — the people come to work — the factories start — the street-cars rattle — lunch hour and the streets again — sport if it is Saturday afternoon — certainly evening and the local dance hall. And so, nothing having happened and nothing positively said about anything, to bed…"[3]

Here, Grierson laments the exchangeable quality of Ruttmannesque city symphonies, both with regard to their internal, money-like logic, as well as the fact that one film may stand in for another without any noticeable difference. Within the film, equivalent footage of morning, afternoon, and evening activities are exchanged in the composition of the city as a whole. This formulaic model makes the films virtually indistinguishable from one another. For Grierson, the films are not art, for they produce no new ideas, only a circulation of filmed materials. In this regard, like money, the value of city symphony films diminishes due to their overproduction.

Another reason for the decline of city symphony films was, of course, the emphasis sound film placed on national cinemas. The symphony film was, in part, an attempt to keep differences between languages from affecting the international reach of cinema as a whole. The global conception of sound symphony films was meant to present language as just another audial

3. Grierson, "First Principles of Documentary," in *Grierson on Documentary* (London: Collins), 83.

practice like laughter or music. However, since symphony films already made up only a small portion of film production overall, they were easily eclipsed by narrative dramas and comedies in which the public could satisfy its desire to hear others talk, sing, and play music on screen.

The mass spectacles of the Soviet Union, too, quickly fell out of favor. Indeed, the period of city-wide mass spectacles like Nikolai Evreinov's 1920 *Storming of the Winter Palace* and Avraamov's *Symphony of Sirens* had largely ended before the genre of the city symphony film had truly begun. This coincided with the end of war communism — a period of fervor and enthusiasm during the Russian Civil War. As Richard Stites documents, by 1924, following the death of Lenin, the conflict between ludic festivals of spontaneous celebration and solemn festivals of monumentality and order had resolved itself in favor of the latter term. Avraamov's symphony, as noted above, held a curious position between these two poles. A military-organized celebration of the anarchic tendencies of workers, the symphony struggled to reconcile the spontaneity of the masses with the consciousness of the party. The fact that this celebration was orchestrated by a composer and not the military itself was an exception to the rule. Already in 1921, as Stites notes, "the military began leading off the major parades, thus signaling a certain heroic and moral hegemony of the armed forces over civilian society."[4] Iconic representations of Bolshevik leaders, especially Lenin, took the place of egalitarian architectures of call-and-response and audience participation. This is not to say that the audience did not participate, say, in marching past Lenin's tomb on Red Square, but that their participation was of a different kind. It was intended to recognize (and be recognized by) the Bolshevik party leadership, seated along the Kremlin wall. Members of the community were not calling and responding to one another but rather performing as a unit for the Party, the actual audience of the

4. Richard Stites, *Revolutionary Dreams: Utopian Visions and Experimental Life in the Russian Revolution* (Oxford: Oxford University Press,1989), 99.

spectacle. The mass spectacle as a radical re-imagination of public space in which streets and squares served as brushes and palettes had been transformed into a mourners' procession.

At the same time, it may be argued that the *Symphony of Siren*'s desire to radically reconstitute society lived on in the very power structures intent on suppressing its type of performance. As mentioned in Chapter One, there is a sense in which certain aspects of Stalinism took part in the ecstatic materialist vision of Avraamov's project — namely, it radical break with the present that was nevertheless realizable through present-day materials. Stalinism itself, as Boris Groys has argued, was the culmination of earlier utopian projects insofar as it attempted to structure life as a whole according to a unitary scheme:

> When the entire economic, social, and everyday life of the nation was totally subordinated to a single planning authority commissioned to regulate, harmonize, and create a single whole out of even the most minute details, this authority — the Communist party leadership — was transformed into a kind of artist whose material was the entire world and whose goal was to "overcome the resistance" of this material and make it pliant, malleable, capable of assuming any desired form.[5]

For Groys, Stalinism was to the Russian avant-garde what the Catholic Church was to early Christianity. In the avant-garde moment — that is, during the period of war communism and the New Economic Policy (NEP, 1921-1928) — warring factions of artists put forward their own all-encompassing visions of the future of society, oftentimes denouncing the schemes and ideas of others as counterrevolutionary or heretical. In the period that followed — that of the first Five Year Plan — a single vision won out — Stalinism, which Groys portrays as a type of *Gesamtkunstwerk.* Likewise, while the early ascetic sects typically renounced the old world, the established Church sanctified old world practices. Hence, under Stalinism, utopian schemes were suppressed and traditional norms of living — the family, gender roles, etc. — returned.[6]

5. Boris Groys, *The Total Art of Stalinism* (Princeton: Princeton University Press, 1992), 1.
6. *Ibid.*, 42.

While aspects of this analogy are fitting, it is important to point out a key difference between Stalinist or totalitarian conceptions of ecstatic materialism and those of the avant-garde. Stites captures this difference well by pointing out that, already under Lenin, the Bolshevik Party typically stressed solemnity with regard to its vision of the future:

> For Lenin, refashioning a drastic new order in a land like Russia was serious business and hard work — not euphoric release, wild abandon, and anarchy. Not even for a day. The elements of humor in Bolshevism were dampened by its need to moralize, congratulate itself, teach, speechify, punish, and organize. One could laugh out the old, but one could not laugh in the new. This is true of all religions, all culture-building movements, and thus all modern revolutions.[7]

For the Bolsheviks, the future was no laughing matter. By contrast, as Avraamov's and Vertov's symphonies show, for the avant-garde, the future was in part greeted with a Bacchanal celebration of sorts. For Avraamov, this celebration manifested itself through the chaos of noise — through car-horn automobile choruses and shrieking sirens. These noises needed to be channeled into a system of music making in terms of both instrumentation and form. With regard to instrumentation, Avraamov designed the steam-whistle machine — a gas main that could play the "Internationale" with the sounds of factory whistles. With regard to form, he developed a symphony that could incorporate the noises of anxiety, war, and celebration into a dramatic whole — a music that could "belong" to the people — as opposed to a solemn ritual of marching and speechifying. Vertov's symphony, by contrast, had a more complicated relationship to its surrounding time period. While Avraamov conceived of his symphony during the period of war communism (1918 was the first performance attempt), Vertov's film was released at the close of the NEP period. Nevertheless, the symphony maintained an atmosphere of noise as laughter — of laughing in the future — while at the same time struggling to regulate this exuberance in

7. Richard Stites, *Revolutionary Dreams*, 98.

terms of a single project. Its orientation toward the future, as pointed in Chapter Three, simultaneously instantiated and undermined aspects of Stalin's Five Year Plan.

Lastly, Brecht's *Lindbergh's Flight* marked a short span in the history of German radio. Indeed, the work is rather idiosyncratic with respect to other German radio programming of the time. As Mark E. Cory points outs, prior to World War II, there were three distinct types of radio art:

> The first was a logical extension of the stage, radio perceived as a theater of the blind. The second took radio 'drama' beyond the staging of works for the blind and sought to develop an imaginative literature written expressly for the new medium. The third understood something even broader: radio art as acoustical art, a radical and short-lived breaking away from literary conventions…[8]

An example of the first type may be found in a 1924 radio reproduction of Schiller's "drama of the Thirty Years' War, *Wallensteins Lager*…" in which actors were "brought before the microphone in clanking armor costumed as if for the stage." An example of the second type is "Richard Hughe's *A Comedy of Danger*, first broadcast by the BBC in January 1924 and in German translation in Hamburg a year and a half later…" The play took place in a mine shaft with sound effects specially designed to render the underground atmosphere. Lastly, an example of the third kind is Walter Ruttmann's radio production, *Weekend* — a work that "proceeds from the same basic thematic impulse as Ruttmann's film [*Berlin, Symphony of a Big City*], but abstracts from this material an acoustical mosaic whose economy, brevity, and precision were to become key signatures of avant-garde radio art."[9]

While Cory locates Brecht's radio play in the second category, it should be clear from the analysis in Chapter Two that it belongs somewhere in between the second and third. The play sought a specific kind of radiophonic art that was composed of the voices that the apparatus

8. Mark E. Cory, "Soundplay: The Polyphonous Tradition of German Radio Art," in *Wireless Imagination*: *Sound, Radio, and the Avant-Garde* (Cambridge: MIT Press, 1992), 334.
9. *Ibid*.

connected. As such, it was not a typical radio play insofar as it sought to do more than simply develop programs whose narrative content could be convincingly rendered in an acoustic format. At the same time, *Lindbergh's Flight* was not as polyphonic and abstract as the kinds of radio programs that Cory suggests make up the third category. These formed the basis for a resurgence of avant-garde radio art in the 1960s, particularly in the work of Paul Pörtner, Franz Mon, Ludwig Harig, Peter Handke, and Gerhard Rühm.[10] By contrast, *Lindbergh's Flight*'s polyphony is limited to its montage construction and the counterpoint between human and machine sounds within the composition. Occupying such a unique position, it may be argued that *Lindbergh's Flight* is a work that breaks with symphonic, musical, and radiophonic conventions. However, as I hope to have shown, the radio play is part of a musical and dramatic tradition initiated by Richard Wagner's notion of the *Gesamtkunstwerk*. As such, while the work is idiosyncratic with respect to German radio art, it is nevertheless an instance of a creative musical endeavor that stretches back to a period prior to the invention of the radio.

On the one hand, the above city symphonic works mark the end of an era in which compositions of the city sought novel ways of fostering and regulating utopian communities. On the other, the concerns of the city symphony, not to mention its innovations in the montage construction of sound and space, persist to this day in ways that reflect the advent of new technologies as well as changing political ideas and institutions. These concerns, as pointed out in the Introduction, include an interest in increasing the scope of musical sound through the exploration of discarded "noises"; expanding the symphony hall beyond its borders; finding new modes of fostering a political community; exploring sounds and spaces as materials; pursuing the possibilities of new media as technical and ideological apparatuses; as well as failing, to a certain extent, to fulfill the communitarian and egalitarian ambitions of these apparatuses. Indeed, it is

10. *Ibid*.

this final aspect that has become an almost self-reflexive theme for some current city symphonies as open-ended works. These include films like Godfrey Regio's *Koyaanisqatsi* (1983) and Patrick Keiller's *London* (1994), novels such as Teju Cole's *Open City* (2011) and Ben Lerner's *10:04* (2014), as well as a number of "dialogical" art installations like Suzanne Lacy, Annice Jacoby, and Chris Johnson's *The Roof is On Fire*, a *Performance with 220 Teenagers* (1994) and Tania Bruguera's *Immigrant Movement International* (2011).[11] Such installations have once again raised issues regarding the relationship between producer and consumer in the context of global politics, the art market, and critical theory.

To be fair, not all these works bill themselves as city symphonies, though they are often interested in urban issues of connectivity and alienation. More importantly, their concerns center around a model of community as polis — the city as a creative space in which links between people may be fostered as well as understood. The inevitable lack of communication, the failure of a perfectly dialogic form of art without any remainders, loose ends, or misunderstandings is something with which they seek to come to terms. As such, in contrast to the city symphonies explored in this dissertation, these contemporary works are far more interested in how communication fails than in establishing indissoluble bonds between listeners, viewers, and participants. In this regard, Cole's *Open City* offers a familiar sonic profile of the city (New York) as a space in which the metropolitan individual is assaulted by the noise of violent stimuli:

> At first I encountered the streets as an incessant loudness, a shock after the day's focus and relative tranquility, as though someone had shattered the calm of a silent private chapel with the blare of a TV set. I wove my way through crowds of shoppers and workers, through road constructions, and the horns of taxicabs. Walking through busy parts of town meant I laid eyes on more people, hundreds more, thousands even, than I

11. See Grant H. Kester, *Conversation Pieces*: *Community in Modern Art* (Los Angeles: University of California Press, 2004) and *The One and the Many*: *Contemporary Collaborative Art in a Global Context* (Durham, NC: Duke University Press, 2011).

> was accustomed to seeing in the course of a day, but the impress of these countless faces did nothing to assuage my feelings of isolation; if anything, it intensified them.[12]

Here we find a familiar city soundscape: the noises of streets, construction, car horns, and crowds. It is not the violence of these stimuli themselves, however, that are the focus of the novel; rather, these noises are the products of the narrator's own feeling of alienation. They are an assault insofar as they are unfamiliar and unwanted, the products of "others" who are painfully distant. The narrator — Julius, a young Nigerian psychiatry graduate student — struggles to make up this distance yet, in a manner fitting for city literature, only ends up walking in circles. The novel is structured around his search for connectivity — both to his own past and his present environment — through countless walks and meditations on New York, particularly on its soundscape. These meditations do not offer a resolution in the form of an epiphany or a reconciliation between characters. Like the city, the musings stay open. A closed system of communication — one in which every call is met with a response — is never reached, while its painful lack is acknowledged as a fundamental feature of urban life.

In this regard, I hope the above dissertation has shed some light on the difficulties of establishing a community in and through art. The idea of the polis as a symphony carries with it the hope of reconciling, in some way, even the harshest dissonances. The audial strategies that Avraamov, Brecht, Ruttmann, and Vertov employed in reaching this goal are important not least because the issues and complications they encountered continue to resonate to this day. The desire to overcome boundaries, to unify humanity in a single city as work of art has not disappeared, nor will it disappear so long as human beings seek greater connectivity. The growth of communications technologies shows that this desire is far from abating. This very search for connectivity, however, yields irreconcilable tensions between the one and the many. The city

12. Teju Cole, *Open City* (New York: Random House, 2011), 6.

symphony, thus, is a work characterized by contradictions. It desires unity and order yet revels in chaos and destruction. It seeks a harmony of noises, an "Internationale" composed of "anarchic tendencies," a dialogue without remainder between disparate peoples, sounds, and spaces. In reconciling these poles, the city symphony is a failure; in attempting to do so, however, it offers insight into the methods, possibilities, and limitations of both art and urbanism as means for structuring society.

## Appendix

Two scores of Arseny Avraamov's *Symphony of Sirens,* printed side by side for comparison.

Where possible, I have tried to match events in each score.

| *Baku Worker* (1922) | *Gorn* (1923) |
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| | On 6 November, last year, in issues of *Baku's Worker*, *Labor*, and *Communist* (published in the Turkish language), the following appeared:<br><br>**For the 5th anniversary of the October Revolution. Instructions for the "Symphony of Sirens"**<br><br>On the morning of the 5th Anniversary on 7 November, all vessels of Gocasp, Voenflot, and Uzbekcasp, including smaller ships and boats, concentrate near the railroad pier by seven o'clock am. Every vessel will receive written instructions and a group of musicians. Then each will take a designated place in the vicinity of the custom's pier. The destroyer Dostoyny (Worthy) with the steam-whistle machine and small vessels will be anchored ahead opposite the tower.<br>B 9:00 the entire fleet should be in place.<br>All available shuttle engines, local and armored trains, and repaired steam engines will arrive at the same time.<br>Cadets of the Fourth Armavir courses of the higher party school, студентый ЦРК (?) students of Azgoconservatory, and all professional musicians should be at the pier no later than 8:30 [in the |
| The fifth gun signals the sirens Azneft trade offices of and the Docks. | |

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| The tenth — II and III factory groups of the Chernyi Gorod [Black Town] regions.<br>The fifteenth — Group I of Chernyi Gorod and the *sirens* of the flotilla. At the same time, the **fourth** company of the Armavir course, headed by a joint brass orchestra and "Varashavanka" marches off the square toward the piers<br><br>On the 18th gun enter factories of the mountain district. Hydroplanes take off.<br><br>The 20th — sirens from the railroad depot and remaining engines at the station.<br>Artillery, fleet, autotransport, and machine guns receive their signals directly from the conductor's tower.<br>Red on white background flag (A) — rifle salvos; yellow with a blue rhombus (4) — machine guns; four-colored (0) — canons; white with a blue cross — **sirens**; red — all horns, orchestra, and automobile chorus.<br><br>During the last *five* shots, *alarm* reaches its climax and terminates with the 25th canon.<br>Pause. Termination signal from the steam whistle. Tri-chord from the sirens. Hydroplanes land. Final signal from the steam whistle.<br><br>"**Internationale**" (4 times)<br>On the half verse, a joint brass orchestra and automobile chorus enters with the "Marseillaise." At the second repetition the whole square as a chorus | morning].<br>At no later than 10:30, the signalers take their place at the [regional, dock, and railroad sirens.]<br>**The noon canon is cancelled**.<br>[The first artillery salute signals the sirens of Zykh, Bely Gorod [White Town], Bibi-Eibat, and Baylov to sound thunderously from the road.]<br>The fifth gun signals the first and second districts of Chernyi Gorod [Black Town].<br>The tenth — sirens of Azneft trade offices and the Docks.<br>The fifteenth — mountain district, [hydroplanes] take off. [Bells] ring.<br><br>The eighteenth — sirens from the [railroad] depot and [remaining engines at the station].<br>(At the same time, the first company of the [fourth] Armavir courses headed by a joint brass orchestra and "Varashavanka" marches off the square toward the piers).<br><br>Alarm reaches its climax and terminates by the twenty-fifth canon. |

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| joins in the celebratory singing.<br>At the end of the last verse cadets and the infantry return to the square where they are met with a “Hurrah.” During the “Internationale” regional factory horns (Gydki), train station, railroad depot and steam engines, are silent.<br><br>Finale — a general chord is given, accompanied by artillery salvos and sound of bells.<br><br>*Ceremonial March*<br><br>On the battery’s signal, “The Internationale” repeats two more times during the final procession. After the third (final) repetition, on a sirens signal, another general chord from all the sirens of Baku and surrounding districts.<br><br>Stoking of the furnaces is obligatory wherever there is a signaling siren. | **Pause**<br>Tri-chord from the sirens. “Hurrah” from the piers.<br>Termination signal from the steam-whistle machine [магистраль].<br>“**Internationale**” (four times).<br>On the second half verse, a joint brass orchestra and automobile chorus enters with the “Marseillaise.” At the second repetition the whole square as a chorus joins in the celebratory singing.<br>At the end of the fourth verse, cadets and the infantry return to the square where they are met with a “Hurrah.”<br><br>Finale — general festive chord of all steam whistles and sirens lasting three minutes accompanied by a ringing bell.<br>Termination signal from the steam-whistle machine.<br>Ceremonial March.<br>Artillery, fleet, autotransport, and machine guns receive their signals directly from the conductor’s tower. Red on white background — battery; yellow and blue — sirens; four-colored — machine guns; red — solo ships, steam engines, and automobile chorus.<br>On the battery’s signal, “The Internationale” repeats two more times during the final procession.<br><br>Stoking of the furnaces is obligatory wherever there is a signaling siren. |

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| | All the above is for the leadership and irrevocable execution under the responsibility of the leading establishments: military authorities, Azneft, Gocasp, and related educational institutions. Every performer must have these instructions on him during the celebration.<br>The chairman of TSOK [Central Organizing Committee] is P. Chagin.<br>Symphony of Sirens organizer is Ars. Avraamov.[1] |

| *Baku Worker* (1922) | *Gorn* (1923) |
|---|---|
| | В No. от 6 ноября минувшего года “Бакинского Рабочего,” “Труда” и “Коммуниста” (на тюркском языке) было напечатано “:<br>**К ПРАЗДНОВАНИЮ 5-ой ГОДОВЩИНЫ ОКТЯБРЯ НАКАЗ по “ГУДКОВОЙ СИМФОНИИ”**<br><br>В утро 5-ой годовщины, 7-го ноября, к 7 часам все суда Гокаспа, Военфлота и Убекокаспия, до мелких паровых катеров включительно, стягиваются к железнодорожной пристани. Каждое судно получает инструкцию и музыкантов на борт и занимает указанное место в районе таможенных пристаней. Миноносец “Достойный” с паровой органной магистралью и мелкие суда размещаются впереди, против сигнальной вышки.<br>В 9 часов весь флот должен быть на |

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| | месте.<br>К тому же часу прибывают на пристань все свободные (маневровые, местного сообщения, бронепоездов и вышедшие из ремонта) паровозы.<br>Курсанты 4 Армавирских курсов, слушатели Высш. Партшколы БК, студийцы ЦРК, ученики Азгосконсерватории и музыканты профессионалы должны быть на пристани не позже 8 1/2 часов утра. |
| По пятой пушке вступают гудки Товароуправления Азнефти и доков.<br><br>По десятой — II-я и III-я группа заводов Черногородского р-на.<br><br>По 15-й — I-я Группа Черного города и *сирены* флота. В то же время 4-я рота армавирских комкурсов, предводительствыемая объединенным духовым оркестром с “Варшавянкой”, уходит к пристани.<br><br>По 18-й пушке вступают заводы горрайона и взлетают гидропланы. | В 10 часов занимает позиции пехота, артиллерия, пулеметы, броневики и автотранспорт, согласно приказа по гарнизону. Аэро и гидропланы стоят на-готове.<br>Не позже 10 1/2 часов на районные, вокзальные и доковые гудки становятся сигналисты.<br>**Полуденная пушка отменяется.**<br>По первому салютному залпу с рейда вступают с тревожными гудками Зых, Белый Город, Биби-Эйбат и Баилов.<br>По 5-ой пушке — 1 и 2 район Черного Города. |
| По 20-й — гудок железнодорожного депо оставшихся на вокзале паровозов.<br>Пулеметы, пехота и паровой оркестр, вступающие в то же время, получают сигналы с дирижерской вышки непосредственно.<br>Красный с белым полем флаг (А) — ружейным залпам; синий с желтым ромбом (4) — пулеметам; четырех-цветный (0) — пушкам; белый с синим крестом (2) — сиренам; красный — всем | По 10-ой “ ” гудки Товароуправления Азнефти и доков.<br>По 15-ой “ ” горрайон. Взлетают гидропланы. Колокола.<br><br>По 18-ой “ ” гудок жел.-дор. депо и оставшихся на станции паровозов;<br>(в то же время 1 рота 4 х арм. комкурсов, предводительствуемая соединенным духовым оркестром и “Варшавянкой”, **уходит с площади к** |

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| гудкам оркестра в направлении сигнала и автомобильному хору.<br><br>В течение *пяти* последних выстрелов *тревога* достигает максимума и обрывается с 25-ой пушкой<br><br>Пауза. *Отбой* (сигнал с магистрали). Тройной аккорд сирен. Снижаются гидропланы. “Ура” с пристани. Исполнительный сигнал с магистрали.<br><br>“**Интернационал**” (4 раза).<br>На второй полустрофе вступает соединенный духовой оркестр с “Марсельезой”. При повторении (первом) вступает хором вся площадь (со словами “Вставай, проклятьем…”) и поет все три строфы до конца.<br><br>В конце последней строфы возвращаются армавирцы с оркестрами, встречаемые ответным “ура” с площади. Во все время исполнения “Интернационала” районные заводские гудки, вокзал (депо и паровозы) молчат.<br><br>По окончании — дают общий аккорд, сопровождаемый залпами и колокольным звоном.<br><br>*Церемониальный марш* | **пристани**).<br><br>Тревога достигает максимума и обрывается с 25-й пушкой.<br><br>**Пауза.**<br>Тройной аккорд сирен. “Ура” с пристани.<br>“Отбой” с магистрали.<br><br>“**Интернационал**” (4 раза).<br>На второй полустрофе вступает соединенный духовой оркестр и **автомобильный хор** с “Марсельезой”. При повторении вступает хором вся площадь празднования.<br><br>В конце 4 строфы на площадь возвращаются курсанты и пехота, встречаемы ответным ‘ура’ с площади.<br><br>По окончании — общий торжественный аккорд всех гудков и сирен стечение 3-х минут, сопровождаемы **колокольным** |

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| | **звоном.**<br>“Отбой” с магистрали. |
| “Интернационал” повторяется еще *дважды* по сигналам во время заключительного шествия. После 3-го (последнего) исполнения по сигналу сирен снова общий *аккорд* всех гудков Баку и районов. | Церемониальный марш.<br>Артиллерия, флот, автотранспорт и пулеметы получают сигналы непосредственно с дирижерской вышке. Красный с белым полем флаг — батарее, желтый с синим — сиренам, 4-х цветный — пулеметам. Красный — сольным судам и паровозам в направлении сигнал и автомобильному хору. |
| | “Интернационал” повторяется еще дважды во время заключительного шествия по сигналам батареи. |
| Топка паровых котлов обязательна всюду, где имеются сигнальные гудки | Топка паровых котлов обязательна всюду, где имеются сигнальные гудки.<br>Все изложенное — к руководству и неукоснительному исполнению, под ответственность руководящих учреждений: военных властей, Азнефти, Госкаспа и соответствующих учебных заведений.<br>Каждый исполнитель обязан иметь при себе этот наказ в момент исполнения. |
| | Председатель ЦОК П. Чагин.<br>Организатор “Гудковой симфонии”<br>Арс. Авраамов. |

[1] A typo in Gordon’s translation reads “Mrs. Avraamov” instead of Ars. Avraamov. So far as I can tell, Avraamov’s wife did not participate in organizing the spectacle.

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## Curriculum Vitae

Daniel Schwartz was born on 28 March 1986 in Mountain View, California. He received a BA in Philosophy from the University of Chicago in 2008, an MA in Philosophy from Johns Hopkins University in 2011, and an MA in German Literature from Johns Hopkins University in 2014. He is currently Assistant Professor (Special Category) in Russian and German Cinemas in the Department of Lanugages, Literatures, and Cultures at McGill University.